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ABSTRACT

Five career education institutes were conducted in West Virginia for 128 superintendents, principals, directors of vocational education, curriculum specialists, and guidance personnel representing 30 counties in the State. The general objective of the institutes was to provide meaningful information and experience upon which educators in local school systems would be able to make decisions relative to planning and implementing career education programs. This document contains the institute program, presentations and activities, list of participants, and evaluation. Papers were presented on task and process in career education, career education principles, career education--boon or boondoggle, the Lincoln County exemplary model, industrial arts role in career education, career education curriculum development, and career education practicum. Evaluation instruments and test scores are appended. (MF)

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CAREER EDUCATION INSTITUTES

A Report on an EPDA Project Entitled:
Strategies for Developing Career Education Programs

U.S. DEPARTMENT OF HEALTH
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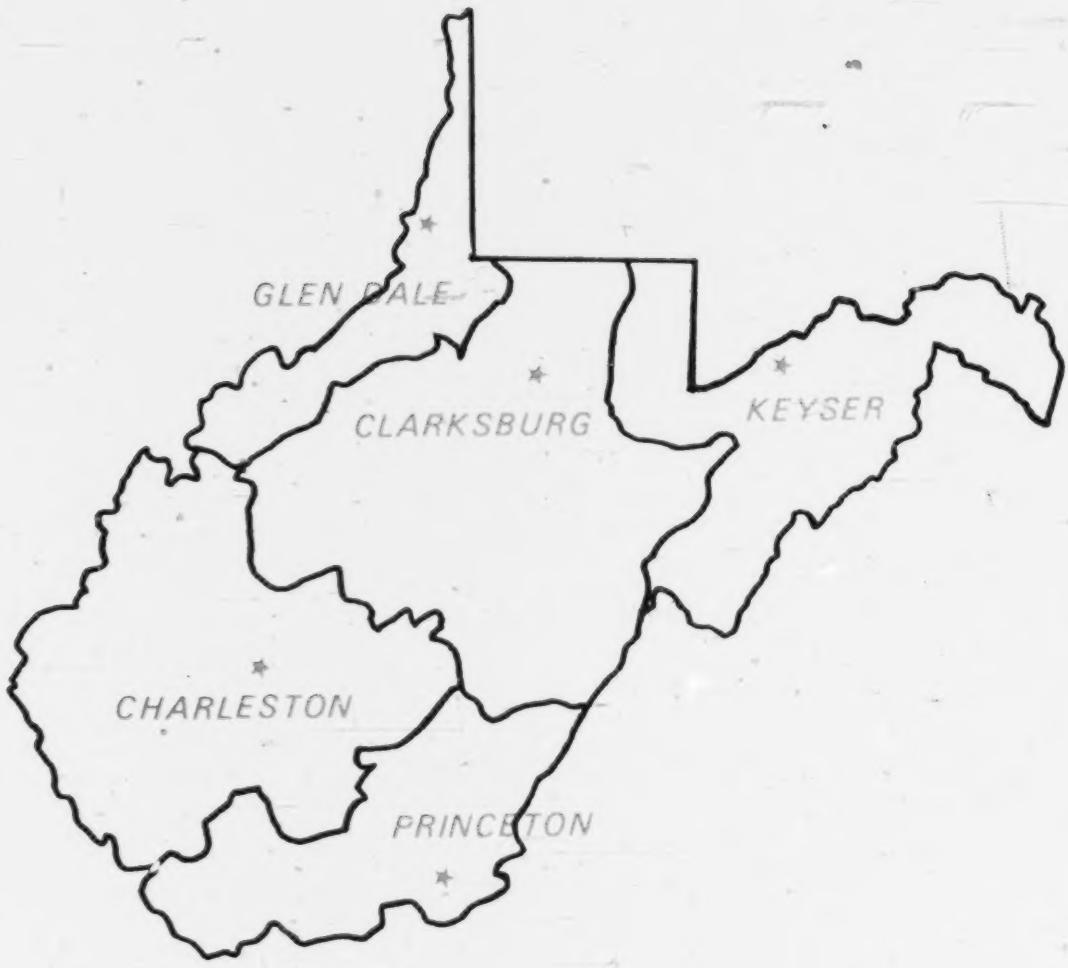

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UT 020 994

PREFACE

The need to provide realistic educational experiences upon which youth can make wise decisions concerning the future has long been recognized. However it has not been until recently that the Federal Government has authorized the expediture of funds for comprehensive career education activities thus providing legitimacy to career education.

There has also been the growing desire on the part of local educators to provide attitudinal and decision making experiences related to the world of work to all students, in all disciplines, and at all educational levels. Because of a lack of specific information and experience related to career education, local school personnel have been reluctant to provide career education experiences to their students.

An attempt was made to overcome the paradox of a desire to provide realistic experiences on the one hand and the lack of "know how" on the other hand by Marshall Univeristy in cooperation with the West Virginia Bureau of Vocational Education and U. S. Office of Education.

Five Career Education Institutes were conducted in West Virginia during the summer of 1972 at the following sites: Charleston, Clarksburg, Glen Dale, Keyser, and Princeton. The target population consisted of Superintendents, Assistant Superintendents, Principals, Directors of Vocational Education, Curriculum Specialists, and Guidance personnel.

The staff consisted of a group of qualified individuals with expertise in diverse fields who possessed a common concern for youth and a common recognition that the public school must expand its four walls and provide more realism in the learning experiences provided to students. The staff consisted of:

Dr. Alton C. Crews
Superintendent
Charleston County Public Schools
Charleston, South Carolina 29401

Mr. Herbert B. Holstein
Director of Vocational Education
and Exemplary Program Director
Lincoln County Schools
Hamlin, West Virginia 25523

Mr. Sidney L. Linville
Assistant Superintendent
Putnam County School System
Eleanor, West Virginia 25070

Mr. Keith Smith
Vocational Guidance Specialist
Division of Guidance, Counseling,
and Testing
State Department of Education
Charleston, West Virginia 25305

Mr. James Snyder
Program Specialist, Industrial Arts
Bureau of Curriculum and Instruction
State Department of Education
Charleston, West Virginia 25305

Mr. Thomas E. Woodall
Career Guidance Specialist
Georgia Southern College
Statesboro, Georgia 30458

One hundred, twenty eight (128) participants representing thrity (30) counties in the State were involved in the five Career Education Institutes. The educators who were involved are as follows:

Gilbert Atkins	Assistant Director	Mercer
Everett E. Barnett	Coordinator of Federal Programs	Barbour
Paul C. Bartlett	Superintendent	Taylor
Kermit B. Bias	Industrial Education	Taylor
Evelyn C. Black	Counselor	Marion
Joseph Blaine Board	Principal	Marshall
Elizabeth Bonie	Elementary Supervisor	Brooke
Louise Bowers	Counselor	Grant
Stella Brink	Adult Coordinator	Barbour
Charles T. Brooks	Director of Vocational Education	Mercer
James R. Brown	Superintendent	Ritchie
Allen D. Bucklew	Superintendent	Tucker
Jan D. Bucklew	Coordinator Guidance and Testing	Tucker
Clarence E. Burdette	Assistant Superintendent	State
Robert J. Burns	Coordinator Pupil Services	Hancock

Richard Campbell	Director	Mineral
Lonnie W. Canterbury	Assistant Superintendent	Roane
Ronald B. Cantley	Principal	Raleigh
Ira Glynn Carlock	Counselor	Mercer
Ted Carter	Counselor	Ohio
Gerald Chadock	Director	Grant
Janice Christopher	Counselor	Berkeley
Wendell Christopher	Assistant Principal	Berkeley
Donald Cleavenger	Director of Vocational Education	Barbour
Joyce Coe	Counselor	Raleigh
George D. Covey	Principal	Raleigh
Rosemary Coury	Elementary Coordinator	Ohio
Philip Darmelio	Supervisor	Brooke
Lena C. Dillon	Counselor	Fayette
Paul J. Donato	Counselor	Marion
Frank Dumas	Assistant Superintendent	Ohio
Dennis M. Edge	Assistant Principal	Marion
A. Thomas Edwards	Director of Federal Programs	Berkeley
George M. Edwards	Assistant Superintendent	Fayette
John M. Evancho	Director of Vocational-Adult Ed.	Hancock
Bettye Evans	Supervisor, Secondary Education	Mercer
Thomas Evans	Principal	Raleigh
Violet Farmer	Counselor	Boone
Judy Felty	Supervisor (Practical Arts)	Cabell
Irene M. Fitzwater	Guidance Coordinator	Fayette
D. W. Fox	Vocational Director	Cabell
James D. Frazier	Supervisor	Monroe
Chester W. Freed	Program Manager	Jefferson
Bernice B. Gist	Public Services	Brooke
Waneila Halbritter	Guidance Coordinator	Preston
Virginia Haller	Coordinator Elementary C & I	Mineral
Robert D. Harmon	Director of Federal Programs	Mineral
S. Eldon Harper	Math Supervisor	Tucker
Donald A. Haskins	Superintendent	Marshall
Katherine C. Hill	Counselor	Mercer
Rhoda Hofstetter	Math Coordinator	Fayette
John L. Holsberry	Principal	Mineral
Harold A. Holstein	Counselor	Boone
Herbert B. Holstein	Vocational Director	Lincoln
Jeanne S. Holt	Adult & Pupil Services Director	Harrison
Paul Holton	Principal	Cabell
Donna Howe	Elementary Counselor	Berkeley
Lyla C. Howell	Counselor	Pochontas
J. W. Kessel	Human Resources Coordinator	Mineral
Phyllis Kessel	Counselor	Grant
Ted Lacy, Jr.	Principal	Raleigh
Ruth Larew	Counselor	Raleigh
Gene Lee	Director, Guidance and Placement	Mercer
Linda Lester	Counselor	Mercer
Betty Linvingood	Director, Curriculum & Instruction	Mineral
Earl R. Lucas	Principal	Boone

Richard A. Mann	Job Placement	Raleigh
Helen Markwell	Kindergarten	Grant
Henry Marockle	Superintendent	Ohio
Mary Elizabeth Martin	Counselor	Mercer
Dale Mason	Principal	Marshall
Toni J. Mason	Career Education Coordinator	Jefferson
Helen K. Matthews	Supervisor-Guidance Services	Wayne
Dorothy L. McCallister	Counselor	Fayette
Mary Jane McMahon	Counselor	Marshall
Richard L. Meador	Counselor	Raleigh
John V. Miller Jr.	Superintendent	Preston
Marguerite Miller	Guidance Director	Mercer
Denis J. Minor	Counselor	Marshall
Charles G. Moore	Assistant Director	Cabell
Connie G. Mullens	Principal	Putnam
Helen Z. Muller	Supervisor	Wayne
Larry Myers	Coordinator of Secondary Curriculum	Mineral
Milburn Joe Nolan	Assistant Director	Wayne
John Nuzum	Vocational Education Director	Harrison
Challens B. Odell	Vocational Coordinator	Tucker
Ernest Page, Jr.	Superintendent	Mineral
Vincent Paoletti	Assistant Principal	Marshall
Maxine W. Perdue	Vocational Counselor	Wayne
Julia L. Pitsenberger	Counselor	Randolph
Fay M. Potter	School Counselor	Brooke
Robert L. Quigley	Assistant Principal	Ohio
James R. Randolph	Director Technical Programs	Wood
Henry A. Ray	Assistant Superintendent	Wayne
Phillip Reed	Guidance Director	Ohio
Eugene Remenar	Assistant Superintendent	Hancock
Margaret Reppard	Counselor	Marshall
Roy G. Ross	Principal	Putnam
Paul D. Rothrock	Superintendent	Hancock
Kenneth Rucker	Director Secondary Curriculum	Putnam
Thomas Gale Schell	Pupil Personnel	Marshall
Lonnie D. Scragg	Assistant Principal	Cabell
Ann Serafin	Director Elementary Education	Barbour
Harold E. Shaffer	Principal	Grant
Eleanor Ann Shirley	Supervisor	Berkeley
Ruby Shrewsburg	Counselor	Mercer
Catherine B. Smith	Counselor	Brooke
David E. Smith	Vocational Director	Pocahontas
Fredric W. Smith	Principal	Pocahontas
James M. Smith	Coordinator Special Education	Taylor
Stephen E. Smith	Principal	Grant
Gary D. Sumpter	Superintendent	Boone
Josephine R. Swiger	Guidance Counselor	Harrison
Lucille Temple	Supervisor	Preston
Leonard Thompson	Principal	Wayne
Gerald A. Trembush	Principal	Marshall

William O. Umstead III	Director-Pupil Personnel Services	Wetzel
William K. Valko	Counselor	Marshall
Kenneth Eugene Vance	Guidance Counselor	Pocahontas
Paul J. Vennari	Principal	Raleigh
Bobby E. Via	Principal	Monroe
Pamela B. Warfield	Elementary Counselor	Marshall
Paul Wassum	Director, Secondary Language Arts	Cabell
Ralph S. Webb	Counselor	Raleigh
Richard C. Whiting	Director of Instruction	Berkeley
Trixie Wood	Counselor	Raleigh
Thomas E. Woodall	Guidance Coordinator	Lincoln
James A. Wright	Principal	Raleigh

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INTRODUCTION

by
LeVene A. Olson

The general objective of the Career Education Institutes was to provide meaningful information and experience upon which educators in local school systems are able to systematically make decisions relative to planning, developing, promoting, implementing, and evaluating Career Education.

Through Career Education, learning experiences can become much more relevant for Americans of all ages. However, administrators and supervisors must be willing to allow teachers to: (1) move away from a regimented curriculum, (2) give up an authoritarian orientation, (3) bring the outside real world into the classroom, and (4) allow students to begin an educational experience at the point of interest and concern of the students.

Many administrators have been unwilling to attempt Career Education because of a lack of specific information and experiences related to the Career Education concept. Robert Worthington, Associate Commissioner for Adult, Vocational, and Technical Education, articulated his concern for the lack of Career Education information and experiences provided to administrators, supervisors, and counselors which has "tended to perpetuate inadequate coordination of resources, a dichotomy between State Departments of education and institutes of higher education, poor

utilization of available support from business, industry and the community and an imbalance in strategies selected to implement priorities."[1]

Educators, parents, and the public are becoming increasingly concerned about the need to provide accurate and complete information and meaningful experiences to students about occupational and educational alternatives. Although educators are usually not concerned with attitudes concerning occupations per se, they are concerned with behavior modification related to academic skills necessary in most occupations.

According to Bandura, "the development of beneficial attitudes is often regarded as a major objective of social change endeavors."[2] He further points out that it is assumed that a correlation exists between the attitudinal domain and subsequent actions. Yet in light of this objective, Toffler states that "the more crucial the question of values (attitudes) becomes, the less willing our present schools are to grapple with it. It is no wonder that millions of young people trace erratic pathways into the future, ricocheting this way and that like unguided missiles."[3]

Students possess a vast repertoire of behavior which reflects attitudes about occupations and education. Many of these attitudes are based, however, on inadequate information and experiences acquired

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[1]Robert M. Worthington, Comprehensive Personnel Development For Career Education, (A discussion paper prepared for the Fourth Annual Leadership Development Seminar for State Directors of Vocational Education, September 1971, LasVegas, Nevada) p. 3.

[2]Albert Bandura, Principles of Behavior Modification, (New York: Holt, Rinehart, and Winston, Inc., 1969), p. 595.

[3]Alvin Toffler, Future Shock, (New York: Random House, Inc., 1970), p. 369.

from misguided socialization agents. The process of socialization (learning attitudes and values) has for the most part in the past come about unintentionally. Attitudes about occupations and education have been formed through incidental learning which has often been based on inaccurate or faulty information. But even with inaccurate or faulty information the youth of today seem to possess a high degree of sophistication. Today's students do not appear to be as naive as the students of the past. Even so, thousands of students graduate from high school each year lacking a useful education.

Addressing this point Commissioner Marland states that the students "are the unfortunate inmates, in most instances, of a curriculum that is neither fish nor fowl, neither truly vocational nor truly academic. We call it general education. I suggest we get rid of it."[4]

In the agrarian society of the American Nation in former years, adult roles were quite visible. Large extended families provided uncles, aunts, grandparents, parents, and others for the young to imitate. Small factories and businesses were often found in the home. The youth were surrounded by and involved in work activities which provided the knowledge and experience upon which attitudes were formulated.

In the past, educated and literate employees were desired but by no means essential. Some of the greatest industries in the United States in the past were administered principally by men who could not speak

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[4]Sidney P. Marland, Jr., Career Education Now, (An address at the Convention at the National Association of Secondary School Principals, January 1971, Houston, Texas) p. 4.

English.[5] However, the development of a highly sophisticated body of science and experience in its application has resulted in rare occurrence of such phenomena.

Changes in American society have virtually eliminated the traditional method of graining knowledge and experience upon which attitudes and subsequent occupational decisions are facilitated. If students who comprise the emerging labor force are to be viable members of society, it is important that they systematically be provided with the knowledge and experience upon which future occupational decisions can be based.

The need for innovative educational programs in a period of massive technological change has long been recognized. Galbraith observed that youth has been excluded from the labor market partly because of the hardship of employment and partly to make way for education opportunities. Yet, youth has not been provided with the education (at least in full and satisfactory measure) which the exemption from labor was designed to make possible.[6]

Congress recognized the need for "new ways to create a bridge between school and earning a living for young people"[7] by including a section on Exemplary Programs and Projects in the Vocational Education Amendments of 1968. One method of carrying out the purposes of Part D, Section 142, is to establish innovative model programs "designed

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[5]John Kenneth Galbraith, The Affluent Society, (Boston: Houghton Mifflin Company, 1958) p. 213.

[6]Galbraith, p. 262.

[7]U. S. Congress, Vocational Education Amendments of 1968, Public law 90-576, 90th Congress (1968), 17.

to familiarize elementary and secondary school students with the broad range of occupations for which special skills are required and the requisites for careers in such occupations.[8]

Hansen suggests that present career education practices in the schools have not kept pace with theoretical developments. Traditional methods of providing career information (occupational information units, career days, etc.) need to be evaluated and possibly replaced by a sequential program, K-12. Hansen's suggestions are based on changes in vocational development theory, the nature of work and its meaning to the individual, and new information retrieval technology. The following are suggested examples of experiences that may be included in career education: (1) decision-making experiences, (2) industrial and educational visits, (3) counseling, (4) career games, (5) simulated decision-making experiences, (6) periodic visits to career guidance centers, (7) periodic career conferences, (8) job site visits, (9) reinforcement models, (10) staff career specialities, and (11) student career logs.[9]

According to Commissioner Marland,

> It is flatly necessary to begin to construct a sound, systematized relationship between education and work, a system which will make it standard practice to teach every student about occupations and the economic enterprise, a system that will marketly increase career options open to each individual and enable us to do a better job than we have been doing of meeting the manpower needs of this country.[10]

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[8] U. S. Congress, 18.

[9] Lorraine S. Hansen, "Theory into Practice: A Practitioner Looks at Career Guidance in the School Curriculum, "Vocational Guidance Quarterly, Volume 16, No. 2 (December 1967), 97-103.

[10] S. P. Marland, Jr., Career Education - More Than A Name, (An address before the State Directors of Vocational Education, May 1971, Washington, D. C.) p.6.

The nature of sociological changes and the resulting ramifications for the individual in today's society and vast technological advances which leave many (to use Toffler's terminology) in a state of "future shock" makes it imperative that school administrators become knowledgeable about alternative methods of providing relevant education for the youth of the Nation

Based on this rationale, the institutes were designed to:

1. Define career education, provide strategies for implementation, and investigate cost and effectiveness of career education.

2. Demonstrate the developmental relationship of career awareness, career orientation, career exploration, and career preparatory education.

3. Provide information concerning curriculum development, correlating curriculum, and teaching strategies suggested in career education.

4. Provide experiences related to administration, articulation, and public relations in career education.

5. Provide experiential activities with commerically produced resource materials, which can be utilized by teachers and students.

6. Formulate models and strategies upon which local schools may conduct programs of career education.

The program schedule for the five institutes was as follows:

Monday:
- Task and Process
- Definition of Career Education
- Strategies for Implementing Career Education
- Costs of Career Education
- Effectiveness of Career Education
- Career Education Model

Tuesday:
- Lincoln County Exemplary Model
- Lincoln County Resource Units and Bibliography
- Industrial Arts Role in Career Education

Wednesday:

Cognitive, Affective, and Psychomotor Objectives
The Emerging Role of Guidance and Counseling

Thursday:

Administration, Articulation, and Public Relations
Career Survey Model
Curriculum Development
Career Education Delivery System

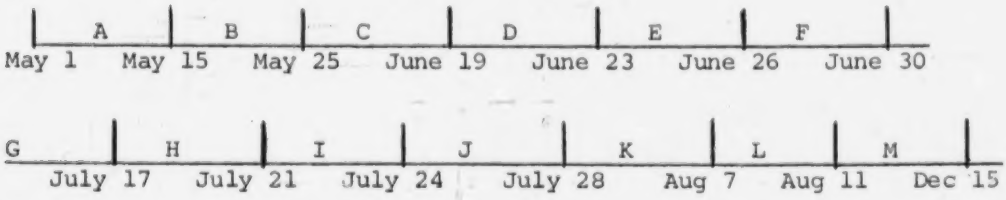
Friday:

Designing Models and Developing Strategies
Organizing and Conducting Workshops

CAREER EDUCATION INSTITUTE

MONDAY	TUESDAY	WEDNESDAY	THRUSDAY	FRIDAY
9:00 Registration for the Institute 9:15 Orientation Lee Olson Task and Process Ed Woodall Career Education Concepts Lee Olson (Interaction Groups) (Seminar Session) 12:00 Lunch 1:00 Cobb County Exemplary Model Alton Crews (Group Interaction) 2:15 Break 2:30 (Seminar Session) Cobb County Model Alt rew	9:00 Lincoln County Exemplary Model Herb Holstein (Group Interaction) 10:15 Break 10:30 Implementing Career Education Herb Holstein (Group Interaction) 12:00 Lunch 1:00 Industrial Arts Technology for Children Jim Snyder 2:15 Break 2:30 (Seminar Session) Technology for Children Jim Snyder	9:00 Cognitive, Affective and Psychomotor Objectives Lee Olson (Interaction Groups) 10:15 Break 10:30 Experiential Activities with Commercially Produced Materials Lee Olson 12:00 Lunch 1:00 The Emerging role of Guidance and Counseling Keith Smith (Group Interaction) 2:15 Break 2:30 (Interaction Groups) Guidance and Counseling Keith Smith	9:00 Articulation and Public Relations Sidney Linville (Group Interaction) 10:15 Break 10:30 Career Survey Sidney Linville (Group Interaction) 12:00 Lunch 1:00 Curriculum Development Lee Olson (Group Interaction) 2:15 Break 2:30 Career Education Delivery System (Group Interaction) Lee Olson	9:00 Designing Models and Developing Strategies Lee Olson (Group Interaction) 10:15 Break 10:30 Organizing and Conducting Workshops Lee Olson (Group Interaction) 12:00 Lunch 1:00 Registration for Marshall University credit Lee Olson 2:00 Concluding remarks and follow-up procedures Lee Olson

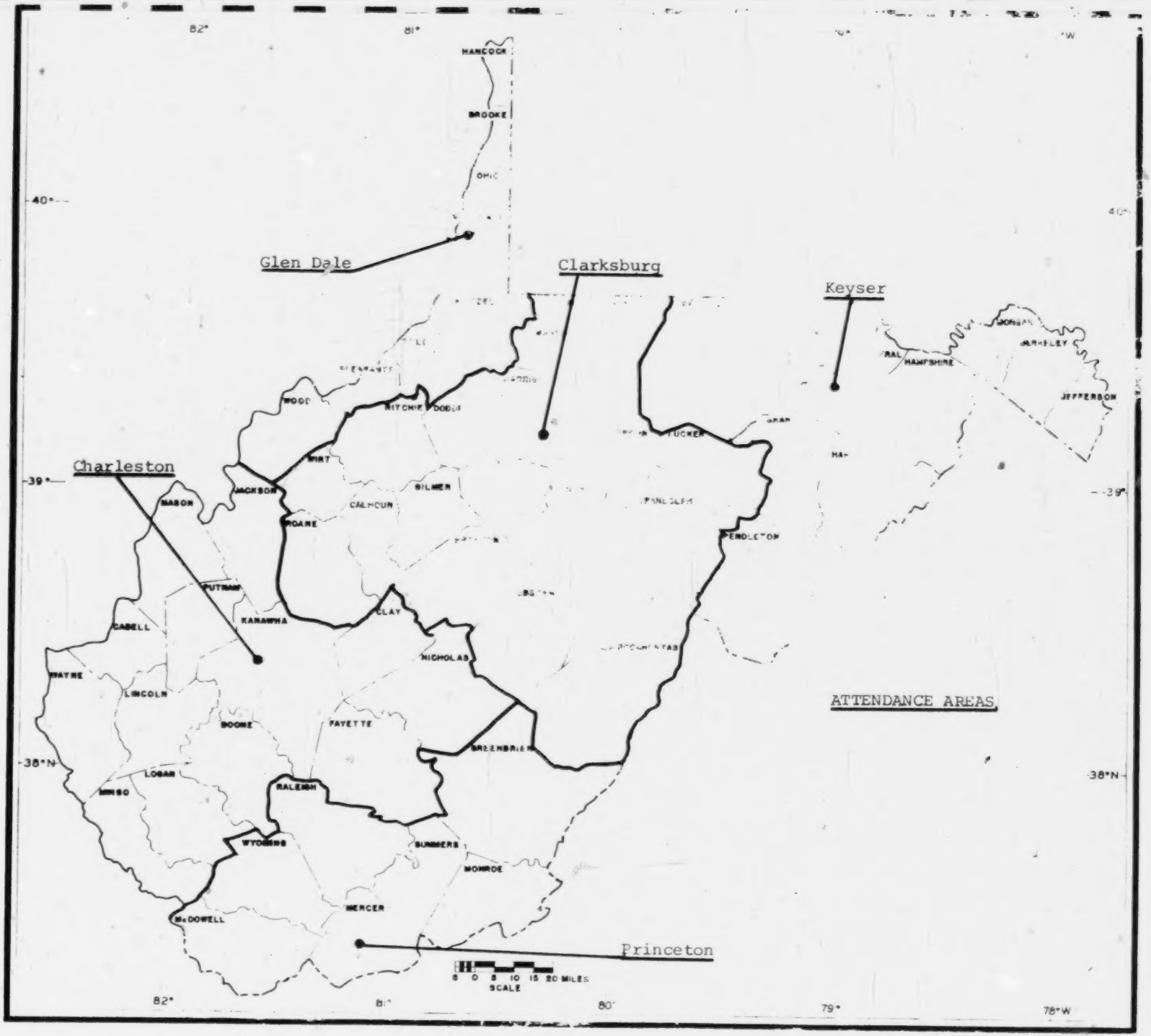
The activities related to the institutes covered a three month period. The following chart indicates the time period and activities involved.



A. Applications Received and Reviewed
B. Applicants Notified
C. Pre-planning
D. Charleston Institute
E. Pre-planning
F. Princeton Institute
G. Pre-planning
H. Glen Dale Institute
I. Pre-planning
J. Keyser Institute
K. Pre-planning
L. Clarksburg Institute
M. Final Report Prepared

The attendance areas for the institutes are indicated on the West Virginia map in Figure 1. The institute sites and dates were as follows:

Charleston Institute: June 19 - June 23
Princeton Institute: June 26 - June 30
Glen Date Institute: July 17 - July 21
Keyser Institute: July 24 - July 28
Clarksburg Institute: August 7 - August 11


Glen Dale
Clarksburg
Keyser
Charleston
Princeton
ATTENDANCE AREAS
HANCOCK
BROOKE
OHIO
WOOD
RITCHIE
DODDRIDGE
HARRISON
TUCKER
PRESTON
MONONGALIA
MARION
MARSHALL
WETZEL
TYLER
PLEASANTS
WIRT
JACKSON
MASON
CALHOUN
GILMER
ROANE
LEWIS
RANDOLPH
BARBOUR
UPSHUR
PENDLETON
HAMPSHIRE
MORGAN
BERKELEY
JEFFERSON
PUTNAM
KANAWHA
CLAY
CABELL
NICHOLAS
WAYNE
LINCOLN
BOONE
FAYETTE
GREENBRIER
POCAHONTAS
LOGAN
MINGO
RALEIGH
WYOMING
SUMMERS
MONROE
MERCER
McDOWELL
40°
39°
38°N
82°
81°
80°
79°
78°W
0 5 0 5 10 15 20 MILES
SCALE

TASK AND PROCESS IN CAREER EDUCATION

by

Thomas E. Woodall

Many worthwhile innovative programs fail because of inadequate attention to the human relations or process phase of the project. Although technical and informational components are often highly functional and relevant, process problems may intervene to minimize the potential effectiveness of the effort. In order to avoid this barrier to program implementation, a dual approach designed to focus on both human relations and technical skill elements was utilized.

A portion of the first day of the institutes was devoted to getting acquainted, trust building, and communications. Experimental situations were created which allowed participants to be involved in and learn firsthand about other participants, perceptions, and communications.

Various get acquainted exercises were utilized in different institutes. In looking at perceptions, the film "The Eye of the Beholder" was utilized. The culminating activities were the utilization of the one-way and two-way Career Education Communications Exercises.[1] The one-way and two-way C.E. exercises are as follows:

[1] Thomas E. Woodall and LeVene A. Olson, Education for Reality: In-Service Training Design for Teacher Orientation in Career Education. Huntington, West Virginia: Marshall University, 1972.

I. One-Way CEC Exercise

A. Background Information on Career Education, Students in grade levels K-6 receive occupational experiences through the existing subject areas of social studies, mathematics, language arts, science, and fine arts. The objective of career awareness education is to provide occupational and educational experiences which will develop the student's skills, attitudes, and knowledge and result in a greater awareness of the occupational options available to the student in the world of work.

Through a process called curriculum correlation, occupational and educational experiences are introduced through a subject which is related to the occupation requirements (academic skills). The study of an occupation is introduced where interest can be stimulated.

The methods or techniques used to provide students with occupational knowledge and experiences are (1) Field experiences to business, industrial, and governmental institutions, (2) Simulation and/or hands-on activities of cognitive, affective, and psychomotor nature including paper and pencil simulation, role playing, and experiences with employers, (3) Manipulative activities such as painting, drawing, printing, sewing, sawing, hammering, sanding, etc. (4) Resource role models representing the family, community, business, industry, and government, (5) Multi-media activities such as books, films, slides, visuals, audio tapes, video tapes, organizational publications, etc. (6) Ability and aptitude assessment of informal classroom activities and formal testing, (7) Guidance and counseling by classroom teachers on a daily basis and occasionally by school counselors, (8) Interpersonal interaction through lectures, discussions, panels, etc., and (9) Occupational research in the classroom library and in the community.

B. Directions For The One-Way Exercises

1. Select one demonstrator from each 6-10 participants.

2. Provide these demonstrators with the background information. Allow time for a complete explanation, questions, answers, and discussion of the CEC Exercise.

3. Divide the participants into groups of 6-10 people. Provide one demonstrator for each group.

4. Provide a pencil and sheet of paper for each participant in all groups. Label the paper:

One-Way CEC Exercise
Career Awareness Multi-Discipline Model, K-6

5. The groups are told that the demonstrator will provide them with directions for drawing a series of circles. The participants are to reproduce these circles according to the directions given by the demonstrator.

6. The participants are not to ask any questions or talk to any other member of the group.

7. The demonstrator may not show the participants the drawings.

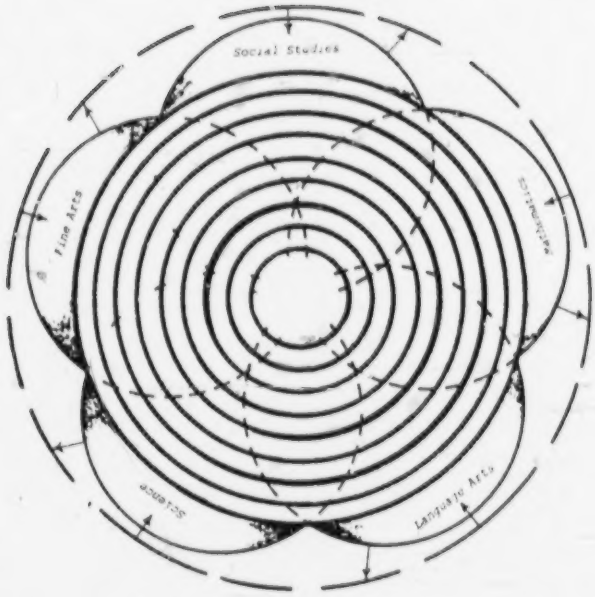
8. The demonstrator may not illustrate relationships with his hands or arms.

9. After the participants and demonstrators have received thorough instructions, all demonstrators are asked to proceed with instructions for the one-way CEC Exercise.

10. All groups should complete the one-way CEC Exercise as quickly as possible. All groups should finish prior to explaining the Career Awareness Model.

11. After all groups have finished the one-way CEC Exercise, the demonstrator (in a group discussion session) views the participants papers. He should draw out reasons why the participants' models do not look like the one used by the demonstrator. The discussion should be in terms of how the participants feel about one-way communications.

12. Demonstrators may summarize with the following.
    A. One-Way communications is usually quicker
    B. One-Way communication is usually less accurate.
    C. One-Way communications is usually disturbing.



One-Way CEC Exercise

Career Awareness Multi-discipline Model, K-6

Note: The inner circles represent the teaching strategies or procedures utilized to provide realistic learning experiences. They are (1) ability and aptitude assessment, (2) field experiences, (3) guidance and counseling, (4) interpersonal interaction, (5) manipulative activities, (6) multi-media activities, (7) occupational research, (8) resource role models, and (9) simulation and/or hands-on experiences.

II. Two-Way CEC Exercise

A. Background Information on Career Exploration (Cluster Concept)

In the lower high school levels, the cluster concept approach may be utilized to provide entry level knowledge, skills, and attitudes in a large number of occupations within selected clusters.

Criteria for the selection of an occupational cluster are as follows: (1) The cluster should include occupations related in terms of duties, materials, finished products, or services performed. (2) The cluster should possess a large breadth of occupations requiring various skills, attitudes, and knowledge.

The criteria for selecting occupations within the cluster are as follows: (1) The occupation should provide good future employment opportunities. (2) The occupation should provide for entry level employment after completion of one's formal education. (3) The occupation should allow for advancement through successful on-the-job-training or additional education. (4) The occupation should be of such a nature that numerous skills, attitudes, and knowledge are necessary for successful performance in the occupation.

Entry level tasks for the occupations meeting the above criteria are identified. The tasks are analyzed to determine the common elements in the areas of skills, attitudes, and information.

The commonalities (elements common to all of the occupations) are taught in the total group situation. The introduction of the cluster of occupations should begin with the commonalities. Following the introduction, students are divided into occupational groups within the cluster. After the student has experienced numerous activities

and developed some job entry skills, he moves to a second occupation. This rotation procedure is followed until the students have experienced activities in all of the occupations offered in a cluster.

Individualized instructional packages may be utilized for selected occupations within the cluster. The instructional units should include behavioral objective(s), diagnostic instrument(s), learning activities, instructional resources, monitoring instrument(s), and achievement instruments.

B. Directions For The Two-Way CEC Exercise

1. Select one demonstrator from each 6-10 participants.

2. Provide these demonstrators with the background information, allow time for a complete explanation, questions, answers, and discussion of the CEC Exercise.

3. Divide the participants into groups of 6-10 people. Provide one demonstrator for each group.

4. Provide a pencil and sheet of paper for each participant in all groups. Label the paper: Two-Way CEC Exercise
Career Exploration Cluster Concept Model, 9-12

5. The groups are told that the demonstrator will provide them with directions for drawing a series of circles. The participants are to reproduce these circles according to the directions given by the demonstrator.

6. The participants may ask as many questions as desired and the demonstrator can provide as many answers and as much detail as needed by the participants.

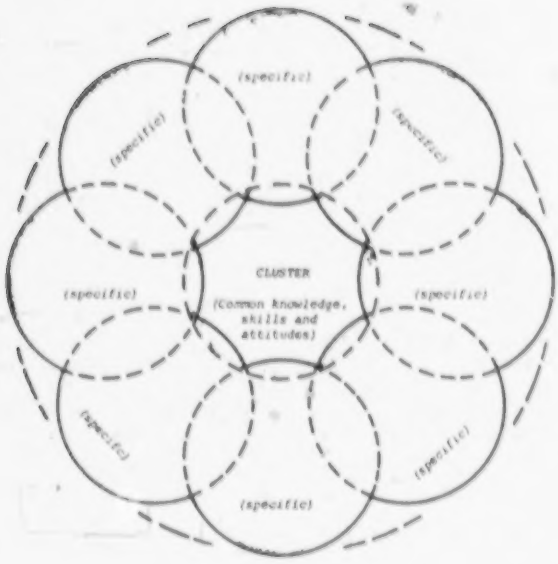
7. The demonstrator may not show the participants the drawings.

8. The demonstrator may illustrate relationships with his hands.

9. After the participants and demonstrators have received thorough instruction, all demonstrators are asked to proceed with instructions for the two-way CEC Exercise

10. All groups should complete the two-way CEC Exercise as quickly as possible. All groups should finish prior to explaining the Career Exploration Model.

11. After all groups have finished the two-way CEC Exercise, the demonstrator (in a group discussion session) views the participants papers. He should draw out reasons why the participants' models may look better than the ones drawn in the one-way CEC Exercise. The discussion should be in terms of how the participants <u>feel</u> about two-way communications as opposed to one-way communications.



Two-Way CEC Exercise

Career Exploration Cluster Concept Model, 9-12

Note: The inner circle represents the common elements found in a cluster of occupations. The outer circles represent specific occupations which require specific knowledge, skills, and attitudes.

CAREER EDUCATION PRINCIPLES

by
LeVene A. Olson

Career Education is a process of systematically providing elementary, secondary, post-secondary, and adult learners with meaningful experiences in academic, general, and vocational subjects. These experiences focus on helping learners become viable individuals who are capable of making accurate choices concerning future careers.

To facilitate this process, the following principles are of major importance:

1. The value of academic skills and their relationship to career success and satisfaction must be vividly illustrated.

2. Complete and accurate self understanding with emphasis on the importance of career decisions must be continuously emphasized.

3. The value, dignity, and importance of each learner must be continuously reinforced.

4. An activity centered functional approach to learning must be utilized to illustrate abstract theory.

5. An open environment which is student centered must permeate the classroom.

6. The cooperative interaction among people significant to the student must be encouraged.

7. The value, dignity, and importances of all work must be continuously emphasized.

8. The concept that occupations and careers are dynamic rather than static must be emphasized.

9. The relationship between sociological factors (leisure time activities) and occupations must be illustrated.

10. The value of acquiring entry-level occupational skills appropriate to the student's career objective must be emphasized.

CAREER EDUCATION-BOON OR BOONDOGGLE?

BY
Alton C. Crews

Ebbs and flows of educational innovations rose and fell with our nation's social, economic and political concerns during the decade of the sixties. As we move into the seventh decade of the twentieth century, school people continue to analyze and ingest events of the recent past to determine their implications for the education of America's youth. Emerging from the ferment of the sixties are several major educational thrusts that may well determine school decisions and expenditures for years to come. Identifiable influences that are emerging are: efforts to make public education more relevant and meaningful to the needs and interests of the learner; this, accompanied by a public clamor for increased effeciency in the operations of public schools, compose a dual mandate from the sometimes fickle citizenry that ultimately determine the tune that the educational fiddler produces. Pedagogical change, though widely acclaimed during the past decade, and frequently enticed by carrot-dangling federal financial incentives, may not have produced hoped for improvements.

Dysfunction of the public school's program is frequently credited with ailments that beset our society. Dropouts, vandalism, absenteeism, and excessive failures are symptomatic of the lack of relevance in school offerings. Many of today's graduates of the high school's "General and/or academic curriculum" are finding it increasingly difficult to secure employment. It is estimated that some 2½ million students each year terminate formal education through high school graduation, or college and high school dropout prior to graduation. Few of these young people possess

adequate skills to enable them to enter the labor market. Less than one of four high school graduates have been enrolled in vocational education programs. Perhaps then, those of us in education should not become indignant and defensive when the schools are accused of being dysfunctional and irrelevant for many of today's youth.

Unfortunately, we have drifted, either deliberately or inadvertently, into school programs referred to as college prep, or vocational. This pedagogical dichotomy has resulted in placing labels on youngsters with resulting value judgments - the college preparatory student being prestigious and highly approved while the vocational student is tolerated but not held in the highest esteem. All too frequently the so-called vocational student is a reject from the college preparatory curriculum and comes to vocational preparation programs as a second choice with a bruised self-image. The age old complaint that vocational schools become "dumping grounds" for the ne'er-do-well academic reject, certainly has some validity. But, must this be so? Is it not possible to design school programs that provide students with a humane orderly, and prestigious path to the world of work much in the same fashion we now afford the college bound? After all, most able bodied and mentally capable persons will at some point in their lives assume the role of a producer of goods or services. For some, this entrance into the labor market will come when they drop out before high school graduation. While others will seek employment at the conclusion of high school, and a smaller group will begin their careers at the conclusion of baccalaureate and post graduate college programs. But all have one thing in common - they go to work. Yet, much of our public school program fails to recognize this obvious fact, and continues to attemp to prepare an excessive number of

students for college as though this were an end within itself. These concerns have generated a growing interest in what has come to be known as Career Education.

Commissioner of Education, Sid Marland, generally considered to be the originator of the Career Education concept, has deliberately refused to define the term. Preferring instead, to let a definition emerge from the grass roots as programs spring up across the land. Commissioner Marland, has, however, characterized Career Education as an effort to "eliminate the separation of things vocational from things academic." Career education, according to Marland, is for the "attache case professions as well as the lunch box job holder." The artificial dichotomy labeling students as partakers of academic or vocational educational fare is removed. Darrel Ward and Edward Ferguson in a paper recently presented to the American Vocational Association defines Career Education as "an education plan for all students which fully integrates academic or basic knowledge and skills with the total spectrum of occupational preparation, thus providing relevance to all education by placing the central focus and emphasis upon preparation for life's career role." The U. S. Office of Education distinguishes Career Education from vocational education in the following manner: (1) Career education is a comprehensive educational program focused on careers. It begins with the entry of the child into a formal school program and continues into the adult years, (2) it involves all students, regardless of their post-secondary plans, (3) career education involves the entire school program and the resources of the community, (4) career education infuses the total school curriculum rather than providing discreet, high profile "career education" blocks forced into the curriculum, (5) it unites the

student, his parents, the school, the community, and employers in a cooperative educational venture, (6) career education provides the student with information and experiences representing the entire world of work, (7) it supports the student from initial career awareness, to career exploration, career direction - setting, career preparation and placement, and provides for placement follow-through, including re-education if desired, (8) career education is not a synonym for vocational education; but, vocational preparation is an integral and important part of a total career education system.

If career education is to become operational, there seems little hope for it to assume the form of a new course to be forced into an already overcrowded curriculum. A more feasible curriculum strategy seems to be to infuse career education experiences and materials into existing subject content disciplines. Infusion can succeed where addition may lead to failure. Through the infusion process, the career education theme is carefully woven into the total fabric of the curriuclum. Such a system will have a functional unity that can bring relevance to the curriculum that will serve both the learner and the society in which he lives. Only time will tell whether career educators are successful in their efforts.

In the Cobb County, Georgia Career Education model, the elementary part of the model proposes to teach an awareness of careers to students in grades 1 through 6. Role playing, simulation, field trips, resource persons, and hands-on activities are employed as teaching methods in integrating career awareness concepts in all subject disciplines. Broad clusters of occupations, 15 in number, compose the content of the program. These occupational clusters are: construction, manufacturing, transportation, agri-business and natural resources, public service, environmental

business and office, marketing and distribution, communications and media, hospitality and recreation, personal service, public service, health, consumer and homemaking, fine arts, and humanities. Local occupations from each cluster are studied by all students in activity units utilizing the techniques mentioned above. Again, it must be emphasized that awareness of and knowledge about occupations is the objective of the elementary career educational model.

Cobb County's middle school program is built around exploration and orientation, still little empahsis being placed on teaching specific vocational skills. Using industry and businesses in the community as learning laboratories, the student gets brief hands-on experiences and learns first-hand what working conditions are like for the worker on several jobs. In the intermediate school, the student narrows his exploration from 15 occupational clusters to 3 or 4 clusters in which he has specific interests. Job visitation and exploration is accompanied by group guidance activities designed to acquaint the learner with his own career interest, aspirations, and aptitudes. Economic awareness of the free-enterprise system and skills in decision making are provided in the middle school program.

Exposed to career awareness programs in the elementary schools and provided exploratory work experience in the middle school, the student now progresses to the senior high school where he is given the option of job preparation program. Subject areas are tied in with occupational information in one or more clusters of work. At the conclusion of the preparation program, the school provides aid in job placement, enrollment in baccalaureate programs, or continuation in post-high school technical training. Such a structural sequence of learning activities spanning awareness in the early grades, exploration in the middle grades and

preparation for work or further training, along with job placement in the senior high school, seems to offer the humane path to the world of work that was mentioned at the outset of this presentation as being one of the desirable objectives of career education.

Re-training teachers and producing or securing appropriate teaching materials are essential first tasks in tooling up for career education. It has been Cobb County's experience that preparing elementary teachers to fulfill their new role has proven to be more successful than has efforts to re-direct the teaching process of the subject-centered secondary teacher. Motivating guidance couselors to devote as much time to placing students on jobs as they do in helping them gain college entrance may pose an obstacle. Removing clerical and administrative minutia from the counselors list of responsibilities has aided, however, in inducing couselors to provide job placement services.

Initial or "start-up" cost for implementing career education constitutes a significant outlay of funds. Once this financial hurdle is crossed, however, operational costs exceed only slightly traditional program costs. Once teachers are trained, materials purchased or developed, and vocational preparation courses broadened to include most students, only the latter continues as an expanded cost.

Certain cautions for the would-be career educator may be in order. Certainly, one who would venture out onto the uncharted seas of career education may find himself the target of critics who would label him as anti-intellectual. Proponents of the traditional classic academic curriculum will be quick to claim that academic vigor and intellectual vigor are being sacrificed on the altar of pragmatism. Cobb's experience,

though of short duration, does not support this contention. Some will question the federal intrusion into curriculum planning, since the U. S. Office of Education has been the principal proponent and a major fund supplier for early career education efforts. A word of caution to the school administrator who is reluctant to give up decision-making prerogatives. Since the community servies as a laboratory in career education programs, the buisnessman, the entrepreneur, and the doctor, lawyer, and Indian Chief, must be taken into parternship in the educational process. No longer can the school administrator, alone, make the educational decision. Finally, can and will the community serve continually as an educational laboratory? Will local businesses and industries be willing to provide its facilities and personnel on a permanent basis to the career education program? Again, only time will tell if the private sector of the economy is willing and able to shoulder this new responsibility.

CAREER EDUCATION - A boon or boondoggle? Is career education truly an educational reform movement, or just another of a long list of educational fads that will fade quietly into oblivion after having its brief fling? Many think not. Certain conditions exist that cause many to believe that career education is a durable and lasting concept that will eventually change the public school program in a significant manner. The move to make career awareness a common learning for all has widespread public support. The purposelessness that characterizes so much of our school program is forcing educators to seek curriculum relevancy. Certainly career education is in the early stages of metamorphosis and has not yet assumed its final shape. Bits and pieces exist in hundreds of school districts across America. These must be field tested, evaluated and synthesized into a workable whole before

the claim that career education is an educational reformation holds any validity. Yet, at the same time, career education just possibly could be the vehicle that will bring a badly needed restructuring of the public schools program. Let's at least give it a reasonable chance to be an educational boon, rather than hastily relegating it to the boondoggle sc ap-pile.

THE LINCOLN COUNTY EXEMPLARY MODEL

by
Herbert B. Holstein

This paper describes the Exemplary Program conducted in Lincoln County, West Virginia. Specifically, this paper addresses itself to the following topics: goals, objectives, assimilation, program levels, supportive services, inservice training, community services, vocational preparation, evaluation, and clusters.

GOAL NUMBER ONE

To provide broad occupational orientation at the elementary and secondary school levels so as to increase student awareness of the range of options open to them in the world of work.

Career Awareness

General Objective

To provide an instructional system designed to present occupational information to children in grades 1-6.

Specific Objectives

(a) To provide students with occupational information to make them aware of the meaning of work and its importance to them and society.

(b) To provide experiences in which the world of work is presented in a manner that is realistic and appropriate to the student's state of development.

(c) To inform students about the multitudes of occupational opportunities.

(d) To present to students a realistic view of the world of work and encourage them to consider their own abilities and limitations.

(e) To provide students with basic information about major occupational fields.

(f) To stress the dignity in work and the fact that every worker performs a useful function.

(g) To visit local businesses and industries to get a first-hand view of the "world of work".

Career Orientation

General Objective

To establish in grades 7-8 a curriculum which will assist the student to acquire such knowledge of the characteristics and function, the duties and rewards of the occupational families within which his choice will probably lie.

Specific Objectives

(a) To give students an understanding of the knowledge and skills basic to the broad spectrum of the occupational families.

(b) To provide the student with a guide to educational and occupational requirements of different jobs. (occupational families)

(c) To assist the student in acquiring a technique of analysis of occupational information and to analyze such information before making a tentative choice.

(d) To stress habits and attitudes which are needed for successful and continued employment.

(e) To provide students with experiences designed to develop an awareness and self-realization that leads to the selection of the appropriate career with realistic aspiration levels.

Career Exploration

General Objective

To provide students in grades 9-10 experiences that will enable them to make realistic occupational choices, experiences in working with others, and understanding of the psychological aspects of work as it relates to their own temperaments, personalities, and values.

Specific Objectives

(a) To inform students about occupational and educational opportunities at all levels.

(b) To provide students not finishing high school with information related to the opportunity to enter and occupational training program and/or employment.

(c) To provide students with knowledge in broad fields of work which will assist the individual in making long range vocational plans.

(d) To provide "hands on" experience in various occupational fields offered at the county vocational-technical education center.

(e) To make the student aware of the continuous changes occurring in the world of work which necessitates continuing education or training in the various career areas.

(f) To provide the student with information concerning other educational opportunities (colleges and other post-secondary programs).

GOAL NUMBER TWO

To provide work experience, cooperative education and similar programs making possible a wide variety of offerings in many occupational areas.

General Objective

To expand present and planned vocational program offerings to include (a) cooperative vocational programs to assist in removing the artificial barriers between education and work, and (b) work-study programs designed to assist in need of earnings from such programs to commence or continue their enrollment in vocational education programs.

Specific Objectives

(a) To provide students with the background necessary to further their career preparation in post-secondary training programs.

(b) To provide students with a salable skill necessary for job entry.

(c) To provide students with skills, attitudes and work habits necessary for employment in a cluster of closely related occupations.

(d) To increase student participation in programs due to broadened curriculum offerings made available through cooperative vocational education.

(e) To provide economic assistance to those students in need of such assistance in order to remain in school and to continue their enrollment in vocational education programs.

(f) To provide opportunities for learning by doing in actual work situations.

GOAL NUMBER THREE

To provide students not previously enrolled in vocational programs opportunities to receive job entry skills just prior to the time that they leave school.

GENERAL OBJECTIVE

To provide each student leaving school opportunities for appropriate training--to develop job entry skills necessary for employment.

Specific Objectives

(a) To integrate vocational and academic instruction with an orientation toward job competence.

(b) To adapt the occupational level of skill training to the abilities and aptitudes of the student.

(c) To provide intensive summer programs for entry level skill development.

(d) To provide opportunities for individually oriented vocational training.

(e) To provide job orientation, work observation and on-the-job training activities.

(f) To provide job creation, job development, job placement and job-coaching activities.

(g) To provide ungraded instruction complimented with specialized, technically competent instructors and instructional packages to assist students in completing the instructional program on an intensified basis.

GOAL NUMBER FOUR

To provide intensive occupational guidance and counseling during the last years of school and for initial placement of all students at the completion of their schooling.

General Objective

To provide intensive vocational counseling for occupational and educational decision-making and job placement services for students who are dropping out of school and those in grades eleven and twelve.

Specific Objectives

(a) To provide opportunities for students to learn more about themselves, ways of working with others, and psychological aspects of jobs as they relate to their values, personalities, aptitudes, and abilities.

(b) To provide students with information regarding post-secondary career development opportunities.

(c) To provide opportunities for students to relate occupational aspirations to educational goals.

(d) To provide students with opportunities to develop understanding of and make realistic career choices.

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(e) To provide students with assistance in finding their first job.

(f) To provide school follow-up services and opportunities for replacement on different jobs, reentry into training programs, and participation in individual counseling and group occupational guidance.

Assimilation into the Existing Structure

The task prior to assimilation into the existing educational structure included employing and training of professional personnel, conducting workshops and in-service training for teachers and administrators, [redacted] the curriculum, testing and advising students, developing curriculum materials, establishing schedules, securing work stations, and performing other activities related to administration and supervision. Within the Lincoln County school system, the model adopted for the reorganized curriculum may be considered innovative. As such, Havelock's model for planned change was adopted.[1]

As one strategy for installation, exemplary staff identified social systems within the county with particular emphasis upon the communication frequency and contact between individual families. The purpose of studying this aspect of the county was to identify the educational, political, economic, and social leaders. Educational leaders were asked to meet early in the discussions in order to assist in the change in the theoretical framework for the new curriculum design. The following sequence of steps have been followed:

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[1] Ronald G. Havelock, A Guide to Innovation. University of Michigan, [illegible]uary 20, 1971.

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(1) Identification of legitimizers

(2) Meetings with legitimizers

(3) Meetings of all teachers, supervisors, and administrators

(4) Identification training needs

(5) Development committees to study needed curriculum, guides, materials and schedules by grade level groups

(7) Workshop held for teachers and principals in seven pilot schools when the Career Education Program was initiated this fall. The workshop facilitated program assimilation through focusing on team building and organizational development, creation, teaching units, correlation and blending of academic subjects into a career awareness focus, and planning and administrative contingencies

The implementation strategy also utilized a sequential phasing in of the career education concept; with grades 1-6 being involved in the fall of 1971, grades 7-8 scheduled for spring, 1972, and grades 9-12 being brought in at the beginning of the 1972-73 school term

Career Awareness

The educational program for the first and second grades begins with the immediate environment and gradually broadens to encompass the larger community environment. The first grade child is introduced to the world of work by investigating family. This is followed by studying workers with whom he comes in contact. The second grader is introduced to new and different kinds of workers in the community, those workers not in his family or at school[2]

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[2]Lee Laws, "Elementary Guide for Career Development, Grades 1-4," Spearman Public Schools, Spearman, Texas, June 1967, p. 17.

The educational program for grades 3 through 6 is designed to increase occupational horizons from the immediate environment to the larger community. Comparing and contrasting occupations in the immediate area to those found in other communities provide the child with an opportunity to become aware of the encompassing nature of work.[3]

The activities learning approach continues to be the principal method of concept development for the active youngsters. Each concept is presented and re-enforced through meaningful activities suited to the physical and mental maturity of the child in grades 3 through 6. In classes with high levels of deviation, such as handicapped and disadvantaged students, adjustments are necessary to facilitate internalizing functional occupational concepts.

The third grade continues the lower primary approach of total and small group activities under the leadership of the teacher. The fourth grader's efforts and interests are integrated into activity-planning providing for individual differences. The curriculum in grades 5 through 6 will include instruction and experience that will enable the students to develop positive attitudes toward work, identify and choose goals for themselves, and study occupational areas in which they are interested.

Career Orientation

The curriculum in grades 7 and 8 designed to give students a knowledge of the characteristics and functions, duties and rewards of specific clusters within a broad spectrum of occupational families. Youth at this age level have rather specific characteristics which suggest certain needs. For example, they have not had opportunities to explore their capabilities in

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[3]Lee Laws, p. 87.

their capabilities in various areas under a variety of situations; therefore, they need opportunities to self-appraise their emerging potentials, to analyze occupational information for decisions making, to understand the importance of all types of work, and to learn the educational and occupational requirements of different jobs.

The curriculum organization in grades 7 and 8 will be characterized by studying occupational clusters across content areas. In addition to integrating the entire curriculum at the grades 7 and 8 around career orientation, two hours per week in the eighth grade will be used in studying the selected occupational clusters. These courses are to be taught by present teachers at the seventh and eighth grade levels.

Career Exploration

The curriculum in grades 9 and 10 is characterized as exploratory. This involves exposure to actual work situations and, hopefully, "hands-on" experiences may be provided that are related to specific occupational clusters. The instructional material will be organized into units for more extensive study. Units for grades 9 and 10 will be selected from broad occupational areas.

Career Preparation

Three methods of student involvement will make up the curriculum in grades 11 and 12; (1) cooperative work experience, (2) specific vocational courses, and (3) pre-professional courses. The cooperative work experience will provide work stations in business and industry with related studies in the high school setting. The specific vocational courses will provide for study in specific content areas with the innovative opportunities for job "spin-off" at all levels within the occupational

The pre-professional courses will provide laboratory settings in which salable skills will be practiced. All courses will be planned to provide for students with varying levels of learning abilities.

Intensive Guidance and Skill Development

For potential dropouts, dropouts, and high school graduates who have not acquired salable skills, provisions will be made for intensive guidance, and skill development may be provided in summer classes or other times during the year appropriate to student needs. A continued assessment will be made of labor market trends in the area of occupational changes through the Department of Labor (West Virginia Employment Security Service). The guidance and skill development will be held to a high correlation with job potential.

Following this intensive guidance and skill development, a follow-up study will be conducted on the job with counseling and job development training. Since Lincoln County traditionally is an area of high out migration, contracts will be negotiated with other school districts to make the necessary follow-up of students employed in other counties, regions, and states when such units provide these services.

Curriculum

The curriculum has become much more experience based providing students with opportunities for field experiences, simulations of occupations, contact with actual role models of various occupational persons, and access to a wide variety of multi-media occupational information. A curriculum blending approach has been taken, with the traditional academic subject matter areas organized around a career education theme, and using team teaching as a vehicle for implementation. The Lincoln County Career

team teaching as a vehicle for implementation. The Lincoln County Career Awareness Curriculum Model emphasizes the student's entering the program at any given point among the academic alternatives and career education elements on the basis of the results of his contact with a diagnostic instrument which assesses his occupational knowledge, skill, and attitudes. Throughout his involvement he will have an opportunity to assess his acquisition of occupational knowledge skills and attitudes. Throughout his involvement he will have an opportunity to assess his acquisition of occupational knowledge skills and attitudes through the use of Achievement Instruments which will aid in identifying his abilities, aptitudes, needs, likes, dislikes, fears, interests, feelings, and values, with an opportunity for modification or re-cycling of his involvement in the curriculum if appropriate. Flexibility, involvement, and experience are the key elements in the current curriculum approach.

Supportive Services

The program has basicly five segments.

(1) Career awareness activities in grades 1-6. This segment can utilize a number of supportive services from within the structure of the Lincoln County School System, such as the health and social services furnished by the ESEA Program, including eye care, remedial health services, and counseling and guidance on health, social, personal and educational concerns. Also for the disadvantaged, linkages with the Department of Welfare will make that agencies resources accessible. The full range of multi-media occupational materials housed in the Lincoln County Demonstration Center will also be available for use by elementary students. Also available for use will be a wide range of businesses and organizations which will provide resource persons and field trip visitation sites. Board of Education school buses have been made available for field trip transportation.

(2) Career orientation activities in grades 7-8. All the supportive services discussed above will be available. Counseling and guidance will be provided by Exemplary staff, ESEA guidance personnel and school counselors to enable students to acquire a knowledge of the characteristics and functions, and duties and rewards of the occupational families within which his choice will probably lie.

(3) Career exploration in grades 9-10. The Lincoln County Vocational and Technical Center will offer facilities for students to obtain "hands-on" experiences in various occupational fields. ESEA guidance personnel will be available to aid students to obtain experiences that will enable them to make realistic occupational choices, experiences in working with others, and understanding of the psychological aspects of work as it relates to their own temperaments, personalities, and values.

(4) Intensified occupational guidance, counseling, and job placement activities for those students who desire to enter work at the termination of their education. This segment of the program will utilize businesses and organizations in the community who will provide cooperative work settings including neighborhood youth corps programs and anti-poverty agencies. Job placement activities can utilize the resources of the West Virginia Department of Employment Security. Training programs will be conducted in the facilities of the Lincoln County Vocational and Technical Center.

(5) Intensified skill development activities for those students who have not previously been enrolled in a vocational program and who have chosen to terminate their formal education. One of the primary supportive services offered by the segment will be the resources of the Department of Employment Security, who will make a continued assessment of the labor

market trends in the area of occupational changes so that guidance and skill development can be held to a high correlation with job potential.

Inservice Training

Those elementary school teachers already involved in the program on a pilot basis, were involved in a week long Inservice Training Session August 16-20. The workshop focused on an overview of the purpose and rationale for career education, team building, and organizational development, consulting skills, and development of objectives, curriculum and methodology by grade levels.

The first day of the workshop, which ran for six hours daily, was devoted to staff and group development, team building and the creation of a consultative helping relationship between project coordinators and participating teachers. The framework for this session was a sequential group building process which took all participants through four basic stages of team development, from getting acquainted and trust building, to the formation of helping relationships, and finally group colobora-tion on a common task. Through the use of a modified laboratory training approach participants were divided into four groups, each with a leader trained in group dynamics. Experiental situations were created which allowed participants to be involved in, and learn first-hand about effective communication, consulting, problem solving, planning, feedback, group decision making, and team work.

The second day a model of career education was presented in the total group by Dr. LeVene A. Olson with reaction and discussion following in the

small groups that were built the first day. The model emphasized a sequential approach with first graders learning about occupations in the immediate family, and each grade broadening its perspective until sixth graders would be studying the interdependence of occupations on a world wide basis. Junior high orientation and exploration would lead to specific choices at the senior high level followed by post high school technical training, a job, or continued academic training. Also on the second day Mr. Joel Smith from a similar project already in operation shared experiences and insights gained from the efforts of he and his staff. Again, the cohesive, unified groups created during the first day were able to share effectively the application of this presentation to implementation of the project in Lincoln County Schools.

On Wednesday, each of the four groups went through the process of developing a Career Awareness Unit that could be used in the classroom, culminating in a role playing situation, in which the groups simulated typical roles played by the occupational persons on which the units focused. Each group observed the others in their role playing efforts, and then offered constructive feedback on positive and negative elements noted.

Thursday's session opened with a lecturette (short Lecture) to the [illegible] group on unit development, including objectives, methodology, and [illegible] unit formats. The Lincoln County program emphasized the inclusion of six elements as being important in maximizing the effectiveness of [illegible] These are field trips, use of a resource person from the occupation studied for a conference in the classroom with students, correlation of academic subjects, identification and study of related occupations, and classroom simulation of the occupation including role playing and manipulative activity. The remainder of Thursday was spent with teachers divided by grade level developing actual units for use in the classroom during the

school year. Units created by project staff and [illegible] coordinators acted as consultants on [illegible] concerns of the groups.

On Friday, work was completed on the units, and the [illegible] noon session saw the seven school [illegible] around scheduling, curriculum [illegible] units, and issues involved in securing resources and [illegible]. Initial units were selected for implementation [illegible] ter. Plans were also outlined for [illegible] between central staff and teachers in a systematic [illegible] relationship.

Community Resources

Exemplary staff members have obtained community support [illegible] formal and informal meetings with P.T.A. groups, business, civic and citizens groups. Various organizations, businesses and community groups have been recruited to provide occupational resource persons [illegible] students in the classroom, and for field trip sites. This strategy of involvement will be utilized continuously to secure the support necessary to insure program success. Teachers, students, school administrators, community leaders, employees, and parents will be further involved in [illegible] tional change concentrated in-service training [illegible] by [illegible] protest [illegible] develop [illegible] for involvement of [illegible] national personnel, students and parents participating in conferences and counseling sessions [illegible] of the guidance program will be utilized to foster parent [illegible] tion in needs determination [illegible] and [illegible]

resources for work experience and cooperative education work stations is planned to cultivate community support and acceptance of the project, thus assuring its continuation beyond the time frame presently allocated.

Vocational Preparation

The Career Awareness Curriculum in grades 1-6 will expose students to the broad range of occupational possibilities, with emphasis on the development of positive attitudes toward work, and enabling students to identify and choose goals for themselves, and study occupational areas in which they are interested. As the student moves into junior and senior high school the program will emphasize more directly job preparation. The curriculum organization in grades 7-8 will be characterized by studying occupational clusters areas, [illegible]ent areas.

The emphasis on job preparation will intensify in the 9th and 10th grades. At these levels the curriculum is characterized as exploratory. This involves exposure to actual work situations and hopefully, "hands on" experiences may be provided that are related to specific occupational clusters. The instructional material will be organized into units for more extensive study.

At the 11th and 12th grade levels three methods of student involvement will aid in job preparation; (1) cooperative work experience, (2) specified vocational courses, and (3) pre-professional courses. The cooperative work experience will provide work stations in business and industry with related studies in the high school setting. The specific vocational courses will provide for study in specific content areas with the innovative opportunities for job "spin-off" at all levels within the occupational cluster. The pre-professional courses will provide laboratory settings in which saleable skills will be practiced.

An additional feature of the job p[illegible]ration aspect of the program will be intensive guidance and skill development in grades nine through post-high school. For potential dro[illegible], dropo[illegible], and high school graduates who have not acquired salable skills, provisions will be made for intensive guidance, followed by intensive skill develop[illegible]. This preparation, guidance, and skill development may be provided in summer classes or other times during the year to meet student [illegible].

Evaluation

Three basic methods of educational assessment will be used: (1) structured interviews, (2) instruments yielding quantative and qu[illegible]tive measures of cognitive and affective characteristics, and (3) instruments yielding comparative profiles. When available, and appropriate to measures germane to the stated objectives, standardized instruments will be used. (In the absence of standardized instruments appropriate to measures of achievement and performance, instruments will be devised and constructed.) Data gain[illegible] from cons[illegible]ucted instruments will enter into the evaluative model only after the reliability and validity of each instrument is determined. Because of the non-existence of objective instruments for measuring occupational knowledge in grades 1-6, the staff of the Lincoln County Project found it necessary to develop tests for this purpose.

The following occupational clusters are utiliz[illegible]n grades seven through twelve with reference been made to them by the teachers of the elementary level.

1. Agri-business and Natural Resources Occupations
2. Communication and Media Occupations
3. Construction Occupations
4. Consumer and Homemaking Occupations

5. Environmental Occupations
6. Fine Arts and Humanities Occupations
7. Health Occupations
8. Hospitality and Recreation Occupations
9. Manufacturing Occupations
10. Marine Science Occupations
11. Marketing and Distribution Occupations
12. Office Occupations
13. Personal Service Occupations
14. Public Service Occupations
15. Transportation Occupations

Criteria of Different Levels
Within a Given Occupation[4]

Professional

1. Important Function
2. Independent
3. Varied Responsibility
4. Deals with policy making and interpretation
5. High level of education where relevant

Semi-Professional and Managerial

1. Some Independence
2. Varied Responsibility
3. Policy Interpretation
4. High level of education where relevant

Technical and Skilled

1. Some variation in responsibility
2. Some policy interpretation and decision making
3. Special training, apprenticeship and/or experience
4. Knowledgeable in a particular skill or area

Semi-Skilled

1. Little or no responsibility
2. Some special training, apprenticeship and/or experience

Unskilled

1. No special training and/or skill

---

[4]Herbert B. Holstein, Billy [illegible] Hartley, [illegible] Watkins, and Thomas E. Woodall, Lincoln County Program [illegible] Vocational Education Using the Occupational Cluster and Career Orientation (Hamlin, West Virginia: Lincoln County Schools, 1972), pp. 2-52.

Simulated or Work Experience for Agri-Business

and Natural Resources Occupational Cluster

Professional----------	Geoglist:	Gather & classify geological material from surrounding area.
Semi-Professional and Managerial----------	Soil Scientiest:	Collect, test, and classify soils from surrounding area. Using Cooperative Extension Service for guidance.
Technical and Skilled----------	Landscape Technician:	Draw & design landscape area for part of the school area.
Semi Skilled----------	Gardener:	Raise & care for plants and flowers in school area. Could use the organic method for this.
Unskilled----------	Caretaker:	Care for lawn and grounds at local school and other local civic areas.

AGRI-BUSINESS OCCUPATIONS

Professional

Agricultural Economist
Agricultural Engineer
Crop Scientist
Wildlife Manager
Geologist
County Agent
Soil Scientist

Semi-Professional and Managerial

Agricultural Communications & Public Resation Worker
Rancher
Seismograph Computer
Spectroscopist
Smoke Tester
Air Analyst
Food Technologist

Technical and Skilled

Forest Technician
Dairy Technologist
Dairy Farmer
Coal Miner
Farmer
Inspector
Nurseryman
Tree Surgeon
Butcher
Animal Trainer
Salesman

Semi-Skilled

Dairy Industry Worker
Mining Worker
Game Warden

Unskilled

Cowboy
Farm Laborer
Meat Packer
Saw Mill Worker
Poultryman
Gardener
Greenskeeper
Logger

Simulated or Work Experience for Communication

and Media Occupational Cluster

Professional----------Editor:	Responsible for producing school paper.
Semi-Professional----------Manager:	Assigning different work roles to people involved in gathering the news.
Technical and Skilled----------Reporter:	Writing up news as you observed it in your assigned role.
Semi-Skilled----------Pressman:	Running paper off school press.
Unskilled----------Vendor:	Selling school paper

COMMUNICATION MEDIA OCCUPATIONS

Professional

Producer
Director
Editor (film & paper)
Actors
Actress
Writer

Semi-Professional and Managerial

Radio-Television Announcer
Reporter
Program Director
Public Affairs Director
Journalist
Artist
Cartoonist

Technical and Skilled

Broadcast Technician
Cable Splicer
Operator
Lineman
Disk Jockey
Photographer
Audio Engineer
Cameraman
Reporter

Semi-Skilled

Compositors
Printing Pressman
Copywriters
Telephone Installers
Telephone Operators
Teletype Operators
Radio-Television Serviceman
Jobber
Lay Out Man
Morse Operator
Telefax Clerk
Engravers
Typesetters
Projectionist
Salesman

Unskilled

Newspaper Vendor
Newspaper Carrier
Public Utilities Worker
Merchandise Clerk
Porter
Wireperson Operator

Simulated or Work Experience for

Construction Occupational Cluster

Professional	Architect:	Draw plans with specifications for local facilities.
Semi-Professional and Managerial	Building Contractor:	Gather information material costs and estimate total costs of specific building.
Technical and Skilled	Carpenter:	Construct table or bookcase for career project materials revelant to that particular need.
Semi-Skilled	Carpenter Helper:	Assist the carpenter in all of his functions.
Unskilled	Laborer:	Help semi-skilled and skilled workers in their different construction occupations.

CONSTRUCTION OCCUPATIONS

Professional

Civil Engineer
Architect
Aeronautical Engineer

Semi-Professional and Managerial

Building Contractor
Surveyor
Draftsman

Technical and Skilled

Cost Estimator
Salesman of Materials
Building/site Inspector
Engineering Assistant
Foreman
Carpenter
Plumber
Electrician
Pipefitter
Riveter
Bricklayer
Iron/structural Steel Worker
Roofer
Glazier
Stone Mason
Welder
Machinery Operator
Plasterer

Semi Skilled

Bricklayers Tender
Oiler
Greaser
Paperhanger
Diesel Mechanic
Construction Helpers
Floor Covering Installers

Unskilled

Laborer
Scaffoldman
Hod Carrier
Rigger

Simulated or Work Experience for Consumer

and Homemaking Occupational Cluster

Professional	Manager:	Do planning and buying of supplies for the school lunch program.
Semi-Professional and Managerial	Dietician:	Plan balanced menues for the school hot lunch program.
Technical and Skilled	Cook:	Preparing school lunches.
Semi-Skilled	Assistant Cook:	Helping the cook in preparing the school lunches.
Unskilled	Dishwasher:	Assist school lunch personnel in caring for the cafeteria.

CONSUMER HOME ECONOMICS OCCUPATIONS

Professional

Nutritionist
Dietician
County Home Economist
Research Economist

Semi-Professional and Managerial

Executive Housekeeper
Chef
Manager of Cafeteria
Food Products Tester
Home Service Representative
Food Inspector
Manager

Technical and Skilled

Baker
Tailor
Seamstress
Garment Examiner
Garment Inspector
Director of School Lunch Programs
Plant Hostess
Kitchen Supervisor
Home Lightning Demonstrator

Semi-Skilled

Cook
Clothing Maintenance Specialist
Caterer
Wardrobe Speciality Worker
Wardrobe Mistress
Cutter
Checker

Unskilled

Waiter
Waitress
Child Care Attendant
Nursemaid
Helper (cook's)
Housekeeper
Dishwasher

Simulated or Work Experience for

Environmental Occupational Cluster

Professional	Botonist:	Study and classify plant life in the area and how these affect ecological balance of nature.
Semi-Professional and Managerial	Park Ranger:	Help manage recreational facilities of the school. Could promote campaign to help prevent forest fires and stop litter. Work with civic people in Keeping America Beautiful.
Technical and Skilled	Tree Surgeon:	Could assist local citizens in care and management of trees in the protection against insects and pests. Work with local conservation officials.
Semi-Skilled	Tree Trimmer:	Work with local citizens in doing light tree trimming work.
Unskilled	Forestry Aid:	Help map and blaze out nature trail by working with local forestry officials.

ENVIRONMENTAL OCCUPATIONS

Professional

City Planner
Ecologist
Geologist
Geo-Physicist
Oceanographer
Physicist
Chemist
Astronomer
Palentologist
Biochemist
Meteriologist
Botonist
Zoologist
Genaticist
Anthropologist
Landscape Architect

Semi-Professional and Managerial

Park Ranger
Forester
Game Warden
Conservationist

Technical and Skilled

Technician
Science Writer
Technical Writer
Fire Fighters (Forest)
Tree Surgeon

Semi-Skilled

Tree Trimmer
Wildlike Manager
Fisherman
Lumberman
Pest Control Operators

Unskilled

Animal Keeper
Forestary Aides

Simulated or Work Experience for Fine Arts

and Humanities Occupational Cluster

Professional----------Actor-Actress:	Act in class or school productions. Take part in civic productions.
Semi-Professional and Managerial----------Interior Designer:	Plan, design, and decorate the interior of school classrooms teachers lounge, or students individual room in their own residence.
Technical and Skilled----------Sound Technician:	Setting up different audio-visual equipment for different school activities to insure the best sound possible.
Semi-Skilled----------Property Aide:	Obtaining and taking care of different types of equipment used in school activities.
Unskilled----------Stage Hand:	Make sure that every thing is in its proper place for school activities.

Professional

Conductor
Band Director
Curator
Instrumentalist
Composer
Opera & Concert Singer
Ballet Dancer
Artist
Producer
Playwrite
Actors
Actress
Director

Semi-Professional and Managerial

Teacher
Dancer
Film Writer
Singer
Interior Designer
Script Writer
Free Lance Writer
Linguisticist

Technical and Skilled

Cheeriographer
Film Editor
Photographer
Fashion Designer
Commercial Artist
Cartoonist
Set Designer
Technicians

Semi-Skilled

Cameramen
Assistant Technicians
Instrument Tuner
Property Aide

Unskilled

Stagehand
Usher

Simulated or Work Experiences for Health

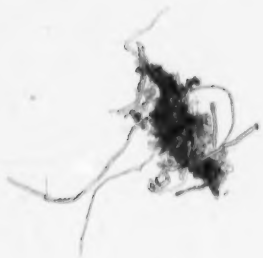
Occupational Cluster

Professional	Dietitian:	Help with the management and food service activities of the school cafeteria.
Semi-Professional and Managerial	Registered Nurse:	Work with the county health nurse in the administrative area's relating to primary students health records.
Technical and Skilled	Practical Nurse:	Visit on a weekly basis an elderly person in the community where they could care in general for the person's welfare.
Semi-Skilled	Nursing Aid:	Work with the kindergarten children.
Unskilled	Orderly:	Help keep things clean in the kindergarten.

Hospital Administrator
Surgeon
Physician
Dentist
Veterinarian
Nursing Administrator
Pharmacist

Semi-Professional and Managerial

Dietitian
Registered Nurse
Public Health Sanitarian
Social Worker
Speech & Hearing Therapist
Sanitary Engineer
Dental Hygienist



Technical and Skilled

Dental Assistant
Medical Illustrator
Medical Record Librarian
Medical Secretary
Radiologist
Medical Technologist
Inhalation Therapist
Licensed Practical Nurse

Semi-Skilled

Laboratory Technician
Laboratory Assistant
Practical Nurse
Personnel Worker
Ambulance Attendant

Unskilled

Nursing Aide
Orderly
Janitor
Carbageman
Ambulance Driver

Simulated or Work Experience for Hospitality

and Recreation Occupational Cluster

Professional	Athletic Director:	Set up supervised play activities with elementary students.
Semi-Professional and Managerial	Athletic Coach:	Coach team of students in activities or referee the activity.
Technical and Skilled	Athletic Official:	Call the sport activities or referee the activity.
Semi-Skilled	Score Keeper:	Keep accurate report of the activity that is being done.
Unskilled	Caretaker:	Take care of the area where the activity is taking place. Both before and after the activity.

HOSPITALITY AND RECREATION OCCUPATIONS

Professional

Professional Athletics
Athletic Coaches
Hotel Managers
Motel Managers
Chef
Athletic Director

Semi-Professional and Managerial

Restaurant Manager
Theater Manager
Instructor
Athletic Director
Travel Counselor
Salesman

Technical and Skilled

Superintendent of Services
Tourist Director
Bar Tender
Receptionist
Cook Florist

Semi-Skilled

Travel Clerk
Desk Clerk
Camp Counselor
Wine Steward
Hotel-Motel Workers
Motion Picture Projectionists
Bell Captain
Hostess
Waiter Captain
Carver
Charwomen
Chamber Maid
Time Keeper/Score Keeper

Simulated or Work Experience for Manufacturing

Occupational Cluster

Professional	Fashion Designer:	Design clothes in home economic class
Semi-Professional and Managerial	Custom Tailor:	Make special garments to order which has been designed in the class.
Technical and Skilled	Cutter:	Cut material from patterns which have been designed before hand
Semi-Skilled	Operator:	Sewing cloth together which has been cut and numbered before hand Could set up an assembly hand type of operation to speed up production.
Unskilled	Packer:	Fold, pack and label the garment which have been made in class.

Simulated or Work Experience for Marine

Science Occupational Cluster

Professional----------Ship Designer:	Work on models with emphasis on sketches, specifications, scale drawings, and full-sized drawings of the entire ship.
Semi-Professional and Managerial----------Ship Builder:	Do various occupations concerning building models; such as painting or various other types of skilled work.
Technical and Skilled----------Ship Fitter:	Fitting pieces of the model together, as indicated on the blueprint.
Semi-Skilled----------Calkers:	Tighten seams and join to make them watertight and airtight of the model.
Unskilled----------Marina Worker:	Tending and taking care of the models which have been built by other students.

MARINE SCIENCE OCCUPATIONS

Professional

Oceanographer
Ship Designer
Engineer

Ecologist (Marine
Zoologicalist (Marine)
Microbiologicalist (Marine)
Botonist (Marine)

Semi-Professional and Managerial

Junior Engineer
Ship Builder
Laboratory Manager

Technical and Skilled

Diver
Machinist Foreman
Ship Fitter
Instrument Maker
Mechanic
Marine Plant Grower
Fish Hatcher & Raiser

Laboratory Technician
Dredger (Off Shore)
Driller (Off Shore)
Life Guard
Ocean Fisherman

Semi-Skilled

Fisherman
Ship Builder
Apprentice Machinist
Motor Boat Mechanic
Gear Man
Calker

Seafood Processer
Seafood Packer

Unskilled *

Marina Attendant
Motorboat Mechanic Helper
Machinist Helper
Lookout

Simulated or Work Experience for Marketing

and Distribution Occupational Cluster

Professional	Manager:	Establish a cooperation which can be further developed into a school store.
Semi-Professional and Managerial	Buyer:	Buy items that can be later sold in the store that serves in school supplies for the student body.
Technical & Skilled	Displayer:	Displays merchandise so that it will attract attention and sell.
Semi-Skilled	Salesperson:	Works in the store selling different items.
Unskilled	Stock Personnel:	Takes care and inventory of all stock in the store.

MARKETING AND DISTRIBUTION OCCUPATIONS

Professional

- Bank President
- Planning Administrator
- Public Relations Worker

Semi-Professional and Managerial

- Store Manager
- Fashion Designer
- Store Owner (Merchant)
- Newspaper Reporter
- Administration Manager
- Advertising Account Executive
- System Analysts
- Buyers
- Broker
- Escrow Officer

Technical and Skilled

- Department Manager
- Auctioneer
- Insurance Agent
- Manufacturing Salesman
- Radio-TV Time Salesman
- Travel Agent
- Real Estate Agent
- Bank Teller
- Adjuster
- Model
- Salesman
- Statistican
- Technologist

Semi-Skilled

- Retail Salesman
- Cashier
- Checker
- Interviewer
- Clerks
- Routemen
- Stock Pricer

Unskilled

- Stock Personnel
- Guide
- Comparison Shopper (Buyer)
- Inventory (Stock)
- Credit Collector
- Shipping Clerk
- Delivery Boy
- Packer

Simulated or Work Experience For

Office Occupational Cluster

Professional----------Manager:	Practice roles in General Business or Office Administration. Can keep set of books for the store which would be set up in marketing and distribution.
Semi-Professional and Managerial----------Cashier:	Work with money that would go through the store or office of the school.
Technical and Skilled----------Typist:	Type materials for the school or correspondence for a store. (General typing work)
Semi-Skilled----------File Clerk:	Filing correspondence pertaining to school administration.
Unskilled----------Messenger:	Taking messages to different personnel within the school building.

OFFICE OCCUPATIONS

Professional

- Office Manager
- Auditor
- Certified Public Accountant
- Statistician
- Actuary

Semi-Professional and Managerial

- Book Editor
- Programmer
- Account Executive
- Accountant
- Cashier

Technical and Skilled

- Paymaster
- Buyer
- Secretary
- Court Reporter
- Bookkeeper
- Stenographer
- Data Processing Operator
- Bank Clerk
- Typist
- Estimator
- Legal Secretary
- Medical Secretary
- Copy Writers

Semi-Skilled

- Office Machine Operator
- Teletype Operator
- Library Technician
- Tape Librarian
- Hotel Clerk
- Shipping Clerk
- Switchboard Operator
- Machine Operators

Unskilled

- Sorter
- Marker
- Addresser
- File Clerk
- Credit Clerk
- Messenger
- Office Boy or Girl

Simulated or Real Experience For Personal

Service Occupational Cluster

Professional	Director:	Set up weight control clinic and general health care clinic in the school for any student who would care to enroll.
Semi-Professional and Managerial	Food Technologist:	Plan talks and demonstrations concerning foods to eat and still maintain balanced meal.
Technical and Skilled	Technician:	Discuss and show methods of avoiding skin conditions by not eating proper types and amounts of food.
Semi-Skilled	Measurer:	Practice Weighing the proper amount of food so that human body gets the right amount of calories.
Unskilled	Exercisor:	Lead group in certain basic exercises to keep muscles in tone and in shape.*

*All of the above should work closely with the home economics teacher and county

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PERSONAL SERVICE OCCUPATIONS

Professional

Rabbi
Clergyman
Priest
Criminologist
Lawyer
Director
Mortician
Veterinarian

Semi-Professions and Managerial

Detective
Funeral Director
Manager
Food Technologist

Technical and Skilled

Barber
Beautician
Secretary
Agriculturist
Photographer
Engineer
Technologist
Technician
Airline Pilot

Clerical and

Waiter
Waitress
Food Preparation
Waiter & Waitress
Busboy
Food Preparation Service Woman
Office & Waiting Service Woman
Cafeteria Manager
Airport Stewardess
Manicurist
Wig Dresser
Masseur
Barber
Masseuse

Unskilled

Service Station Attendant
Houseman
Caretaker
Parking Attendent
Grave Digger
Laundry Worker
Valet
Baggageman
Ironer
Presser
Exerciser

Simulated or Work Experience for Public Service

Occupational Cluster

Professional----------	City Administrator:	Plan and conduct activities such as meetings which would be similiar to those of a city.
Semi-Professional and Managerial----------	City Manager:	Responsible for carrying out or seeing that the responsibilities are done.
Technical and Skilled------	City Planner:	Design things to improve the city or area where the school is located.
Semi-Skilled----------	Technician:	Do things to improve the looks of the area that has been designed by others. Such as cleaning up local park.
Unskilled----------	Laborer:	Helping to see that everything is done by actual on the job experience

PUBLIC SERVICE OCCUPATIONS

Professional

City Administration
Sociologist
Counselor
Judge
Psychometricist
College Administrator
City Manager
Occupational Therapist
Parole Worker
Political Scientist
Secret Service Agent
School Superintendent

Semi-Professional and Managerial

Teacher
Social Worker
City Manager
Cooperative Extension Worker
Guidance Counselor
Internal Revenue Agent
Safety Engineer
Speech Correctionist

Technical and Skilled

Custom Inspector
Civil Service Worker
Policeman
Mailing Supervisor
Shipper
Fire Warden
Fireman
City Planner

Semi-Skilled

Postal Clerk
Guards
Sheriff
Rural Mail Carrier
Meter Reader
Technician

Unskilled

Mail Sorter
Alarm System Worker
Watchman
Washroom Attendant

Unskilled

Garbage Collector
Laborer
Camera Girl
Elevator Operator
Grounds Keeper
Gardener
Maid
Doorman
Bus Boy
Waiter-Waitress
Caddy
Car Hop
Dishwasher
Bellman
Rack Clerk
Key Clerk
Mail Clerk
Red Cap

Simulated or Work Experience For Transportation

Occupational Cluster

Professional----------	Traffic Engineer:	Plan, design, and develop traffic-control systems to prevent accidents, minimize congestion in the school, school activities and parking facilities of the school.
Semi-Professional and Managerial----------	Station Master:	Plan, design and develop parking a[illegible] for school personnel.
Technical and Skilled-----	Toll Collector:	Responsibility for selling tickets for parking vehicl[illegible] at school.
Semi-Skilled----------	Automobile Mechanic:	Check school buses for such things as oil, etc.
Unskilled----------	Service Station Attendant:	Check faulty cars in such areas as oil, water, tires, clean windshields, and etc.

TRANSPORTATION OCCUPATIONS

Professional

- Aerospace Engineer
- Airline Pilot
- Airport Manager
- Flight Engineer
- Traffic Engineer
- Ship Captain
- Train Engineer

Semi-Professional and Managerial

- Helicopter Pilot
- Air Traffic Control
- Chief Mate
- Station Master
- Pipe Line Superintendent

Technical and Skilled

- Aerospace Technicians
- Airline Dispatchers
- Airline Stewardesses/Stewards
- Traffic Agent
- Air Mechanic
- Brakeman
- Driving Instructor
- Long Distance Truck Drivers
- Ship Pilots
- Dispatchers
- Ticket Agent
- Second Mate

Semi-Skilled

- Auto Body Repairman
- Auto Mechanic
- Airline Mechanic
- Busdriver
- Merchant Seaman
- Railroad Telegrapher
- Boatswain
- Third Mate
- Purser
- Asbestos & Insulation Worker
- Assemblers
- Structural Workers
- Die Maker
- Tool Maker
- Repairman
- Iron & Steel Worker

Semi-Skilled

Leather Mfg. Worker
Sheet Metal Worker
Machine Operator
Pipefitter
Plumber
Seamstress
Gunsmith
Blacksmith

Unskilled

Taxi Driver
Longshoreman
Stevedores
Truck Worker
Chauffeur
Blacksmith
Lubrication Man
Gasoline Station Attendant
Utility Man
Toll Collector
Car Checker
Assembly Worker
Book Binder
Yardage Caller
Canning Worker
Dry Cleaning Worker
Warehouse Checker
Shipping Clerk
Receiving Clerk
Laborers
Maintenance Helper
Shipper

INDUSTRIAL ARTS ROLE IN CAREER EDUCATION

by

James F. Snyder

Career education--what is it? Who is it for? How should it be implemented in the public schools? At what levels of school should it be implemented? These are questions that are commonly asked and you have heard some ideas already. I would like to attempt to answer these and other questions as I speak to you today.

What does career education do for children and adults? I would like to relate a story to illustrate what this concept can do for children: "While walking down the street with a friend one day, a teacher passed a large fish store where a fine catch of codfish, with mouths wide open and eyes staring, were arranged in a row. The teacher stopped, looked at them and clutching his friend by the arm exclaimed: 'Heavens, that reminds me--I should be teaching class!'" The story points out the eagerness to learn as a result of a curriculum so filled with relevant material that children and adults are waiting to be taught more--eyes wide open and mouths agape. It should not, however, be instituted like the "fellow who put on a clean pair of socks every day and by the end of the week, he couldn't get his shoes on." Career education is not meant to be another area of study to force upon teachers who are already overwhelmed with subject matter during the day. It is to encourage activity within the curriculum to provide meaning for what is being taught. It is not enough to say 'You will need this in your later studies'. There must be a <u>now meaning</u> for doing. The miner recognizes "pay dirt" as "ore-bearing rock" and if education is to produce "pay dirt" the curriculum must "bear some ore".

As I envision education I do not see career education as a new sign or slogan on the horizon. It has, however, risen its head to be singled out.

Since 1969, and even before, industrial arts educators have been asking questions related to". . . career development or preparation for occupational competence as a part of the instruction in industrial arts courses."[1]

Frank C. Pratzner, in an article 'Changing The Goals of Industrial Arts: An Occupation Development" in 1969--recommended the replacement of the typical industrial arts program with an "occupational development curriculum" intended to provide exploratory experiences across the practical arts areas in the junior high school. He advocated discarding many of the traditional industrial arts objectives and emphasizing interest in occupations and the development of worthy leisure time interests. At the senior high school level he advocated a required program of occupational development, involving a work-study program, independent occupational studies, and small group activities. Under this plan, specific vocational training would be conducted at the post-secondary level.[2]

In 1970, Howard F. Nelson, in "Which Way Industrial Arts in the 70's",- recommended modification of the existing senior high school program as necessary to include information about and preparation for post-secondary occupational programs. He suggested an emphasis upon the development of good habits of learning and working, the use of the community as a classroom, and such prevocational learnings as adjustment to job demands, honesty, dependability, loyalty, and flexibility. He argued that it was possible for industrial arts programs to meet such recommendations within the frame-work of existing objectives, courses, and facilities.[3]

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[1]Curriculum Development in Industrial Arts Education, ERIC, Series No 59, VT 014 273 p. 25. Ohio State University

[2]op cit p. 25-26

[3]op cit p. 26

In 1971, Donald G. Lux, while writing the article "A Call for Action",-- took exception to Nelson's recommendations, and argued that the occupational use of the body of knowledge identified as industrial arts is only one of the many purposes to which the knowledge may be applied by the learner. He indicated that industrial arts should serve technical, recreational, consumer, cultural, and social purposes as well as occupational purposes in the educational enterprise. Lux emphasized his position that occupational or vocational education is a purpose, not a body of knowledge; while industrial arts is a body of knowledge which may be used for any of the six educational purposes he outlined.[4]

Again, in 1971, the article "Teaching Industrial Arts in a Workaday World", John G. Bradley argued that instruction in industrial arts courses could stimulate interest in future vocational pursuits. He went on to emphasize the need for practical instruction oriented to the value of work, dignity, and pride of accomplishment, and individual development. While Bradley did not recommend that industrial arts should assume the total spectrum of occupational preparation, he did indicate that industrial arts should provide an effective foundation for later, more specific vocational courses.[5]

Grant Venn, in the article "On Industrial Arts and Vocational Education", urged industrial arts educators to expand their programs to provide the exploratory experiences needed to make a wise career choice and the basic skills useful in many occupational endeavors. The same [illegible]

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[4]op cit p. 26

[5]op cit p. 26

indicated that industrial arts should continue to attempt to fulfill its other objectives, especially the function of nurturing creativity.[6]

And finally Edward Kabakjian while writing, "A Role to Play in Manpower Development" recommended the expansion of industrial arts programs as a means of providing a broad range of experiences at all educational levels in order to reduce the dropout rate and improve the accuracy of career selection.[7]

I have related this to you only to illustrate the thinking that has taken place in industrial arts and continues to take place in our professional field.

We may ask why career education has risen at this time. Career Education, What It Is and How To Do It, by Kenneth B. Hoyt & others state two points in the rising favor: "1. It has emerged at a moment when dissatisfaction with educational practices and outcomes are at a peak.

2. It promises to attack and improve some of the apparent sources of that dissatisfaction."

Dr. Sidney Marland, U. S. Commissioner of Education expresses that career education is designed for all children at all grade levels and indicates it is the nucleus, not core because of misunderstandings, of all education. He states, "The fundamental concept of career education is that all educational experiences...should be geared to preparation for economic independence, personal fulfillment, and appreciation for the dignity of work."[8]

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[6] op cit p. 26

[7] op cit p. 26

[8] American Vocational Journal, Career Education. Every Student Headed for a Goal, Dr. Sidney P. Marland, March 1972, p. 35.

Along this same thought E. Arthur Stunard, Effecting Change Through The Elementary Classroom Teacher: Institute Phase, mentions, ". . .technology can be a base from which to develop all areas of learning that might take place in the school environment. . ." He goes on to say, ". . .technology in the classroom provides a total learning environment that pulls on all areas of the established curriculum."

While much has been done on the upper levels of public schools in terms of industrial arts and career education, the elementary level is now gaining momentum. This is an important level of emphasis. The elementary grades serve as the awareness stage for career education in Commissioner Marland's blueprint. I will treat the entire curriculum plan, while presenting some models of an interdisciplinary approach, with much interest given to grades K-9. It is at this level a foundation will be established to allow for wise decision in terms of career choice. Career education should assist individuals in developing their unique possibilities as human beings to enhance their abilities to make a proper choice of work. The attitudes and values they develop will be very important. The established attitude of living in a technological society with all its obsolence and being able to adjust is vital.

To illustrate industrial arts in career education I wish to utilize the following transparencies:

#1 The Curriculum Development--expand
#2 Goals of Career Education in Relationship to Industrial Arts
#3 Model of Career Education (I. A. Role)
#4 My Concept of I. A. Role--Line drawing
#5 Model depicting I. A. Based upon Preceding I. A. Concepts

Let us first explore the definition of the career education level and then pursue curriculum content of industrial arts. Awareness: Webster's 7th

New Collegiate Dictionary defines it as syn. cognizant, conscious, sensible, alive, awake: Aware implies vigilance in observing or alertness in drawing inferences from what one sees or hears or learns: Cognizant implies having special or certain knowledge as from firsthand sources: Conscious implies having an awareness of the present existence of something: Sensible implies direct or intuitive perceiving especially of intangibles or of emotional states or qualities: Alive adds to sensible the implication of acute sensitiveness to something: Awake implies that one has become alive to something and is on the alert.

> Industrial arts activities at the elementary school level serve many purposes. They help the child growing up in an industrial society to acquire firsthand knowledge of how materials are altered to better serve the needs of people in that society. They also help the child to deal more effectively with variety of concrete media through the use of tools as extensions of himself.[9]

Industrial arts activities offer tasks of a technical nature which transcend the usual paper pencil oriented tasks of the classroom. They not only provide children with a greater variety of activities in which to achieve success but also enable them to understand the diversity of human activities and, within this context of understanding, help them to identify and develop their unique abilities. In a sense this goal is vocational in the broadest possible way. For example, reading and writing in the elementary school could be considered vocational, inasmuch as

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[9] The Encyclopedia of Education, Vol. 5, "Industrial Arts Education; Elementary School", Elizabeth Hunt, MacMillan Company and the Free Press, p. 5-6

such skills are the initial experiences for a literary career.

In most instances elementary school industrial arts covers kindergarten through sixth grade. This level of industrial arts is destinct from the junior or senior high school level because the activities are generally conducted in the child's own classroom. Although some schools may have a special room to which children go for the manipulative phase of industrial arts to be taught in a separate room, ideally the manipulative aspects maintain their relationship to subjects studied in the classroom.

The purpose in developing and maintaining the relationship between manipulative activities and subject matter is to provide a context for interpreting for the child the significance of the skill acquired, the specific tools, materials, and processes used, or the product developed.

Elementary grades--activities are to familiarize students with the many kinds of work people do and the interrelationship of such work in producing and using goods and services. Emphasis is placed on attitudes, values, and manipulative activities thru group interaction, tools & materials, individual curiosity, role playing, simulation games, etc.

The range and nature of the manipulative aspects of industrial arts activities are diverse and vary from school system to school system. Children in kindergarten mass produce items: cut and shape thermoplastics: vacuum form plastics: pound nails into tree stumps: print with ABC blocks: print by the silk-screen method: work with battery, bulb, and buzzer circuits; run the liquid duplicator; and shape clay and fire it. As the children

get older, they engage in these and other processes on a more sophisticated level. They make their own cameras: develop their own film: build a variety of electrical devices such as motors and crystal radio sets: construct transits for mapping: construct musical instruments: make paper for printing: and even build and launch rockets. Their activities may range from felling trees for construction of an authentic log cabin to manage all the aspects of a rubber-stamp business, including bookkeeping and the technical process of making the rubber stamps.[10]

Exploration: level II--to seek. . .to search. . .to examine minutely especially for diagnostic purposes. . .to make or conduct a systematic search during the middle or junior high grades children would be able to "explore" in a laboratory of technology and careers. This implies the utilization of a multiple activities classroom where children could experience technical concepts, research career opportunities, solve problems and study interdependencies of careers, jobs, industry, etc. This would be a great change over traditional industrial arts labs where projects are the center of activity. The conceptual approach affords children a broad exposure to concepts of the world of work. The fact that while functioning within such an environment children would be problem solving, all areas of the curriculum would be emphasized. Conversation, written report findings, demonstrations, calculations, group interaction, scientific/physical properties being used and worked with would be evidence of a natural integration of interdisciplinary teaching. This does not imply totality but only a segment of our curriculum. It is not my belief that one concept should be overpowering the others.

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[10]Ibid., Industrial Arts Education: Elementary Schools p. 7

The accomplishment of problem-solving does not always require an extemperanious idea but may be in the form of simulation, models, games, role play. It is not to imply that these experiences could not be performed in the subject area classroom but could also be accomplished in this laboratory. Many situations may require greater setting up or durations of time that could be suited to the laboratory. Special equipment may and will be required which would be best suited to a laboratory. This then would offer children the exploratory phase to the career education concept. Remembering this is to be for all and not selected students.

The industrial arts teacher, verses vocational teachers, is broad in his vision to careers and technologies. He is interested in a bredth of exposures to assure students a greater base of knowledge to establish work decisions at a later period in his life. The student can make a wiser selection of career with this broad base to work from. He will be exposed to many sectors of industry and technology. He learns the solving of problems by scientific process. He interacts within groups to design, implement and evaluate a mass production problem. There are many exercises to perform in the understanding of a technological society which is composed of varying careers.

The industrial arts teacher would not be concerned about the utter exactness of a skill but rather the conceptual understanding of application and utilization in the world of work. With this kind of involvement children find a meaning in their education. It becomes fun and when learning becomes fun children "turn-on" and get excited. We as adults are drawn to certain activities and oppose others based upon our enjoyment of the activity.

Thus, the exploratory phase built upon the awareness stage becomes another step in a logical sequence toward career decision and pursuit.

Occupational selection, level III, funnels down to explicit choice and the program is developed around the students interest.

In an interdisciplinary approach we see by subject area the concepts to be developed at various grade levels and can detect the implication of activity through industrial arts and career education.

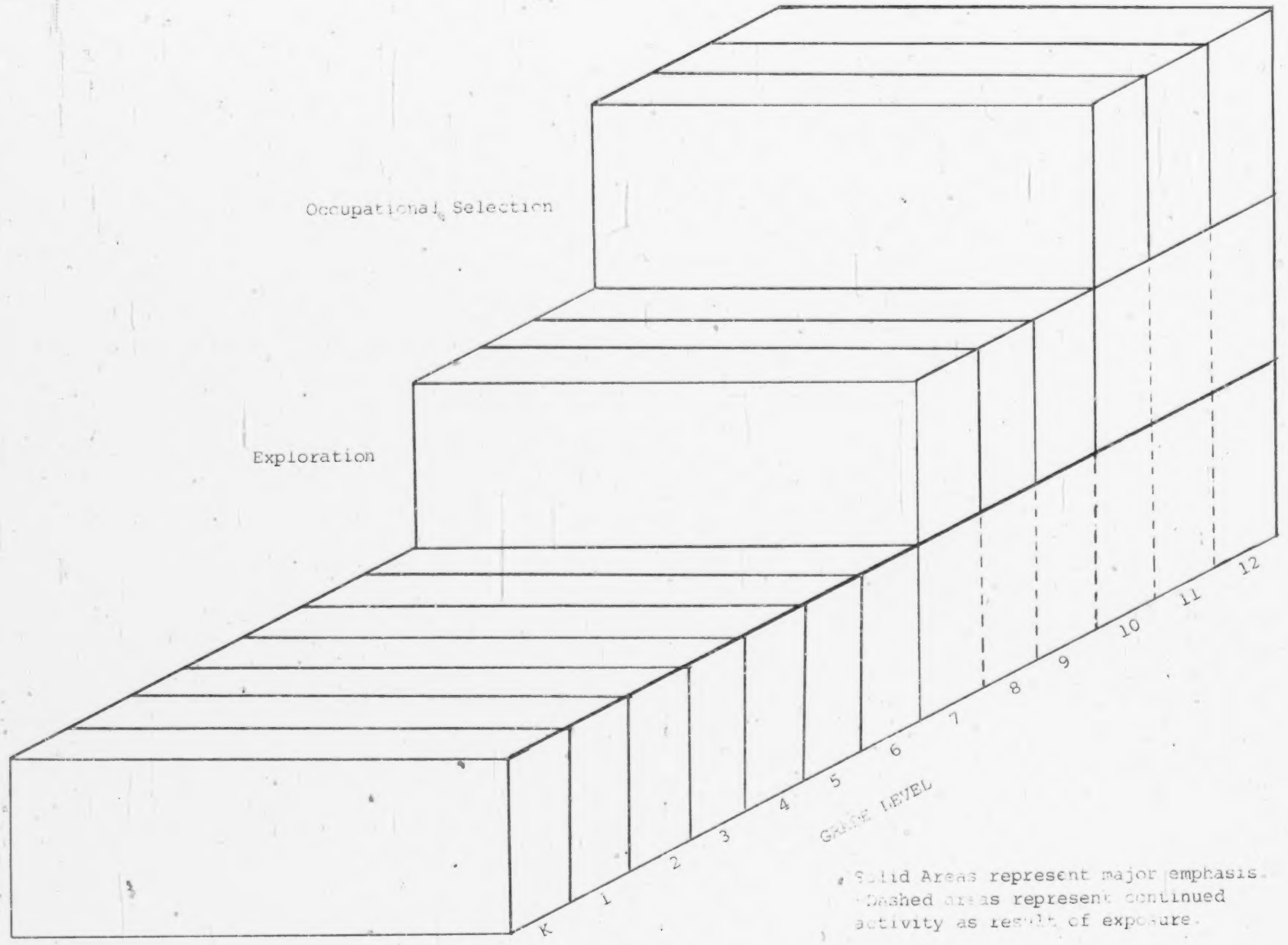
#6 Social studies---activities
#7 Science----activities
#8 Language arts----activities
#9 Math---activities
#10 Illustrates implimentation of science
for paper
Language Arts---use of paper
Math---amounts of materials
Industrial arts---use of tools and
materials to make paper.

Dr. William Purkey at the Open School Conference at Berkeley County stated "There's no such thing as an unmotivated kid. A kid is always learning." He declared. "Teach him he's valuable and able and what it means to be a human being."

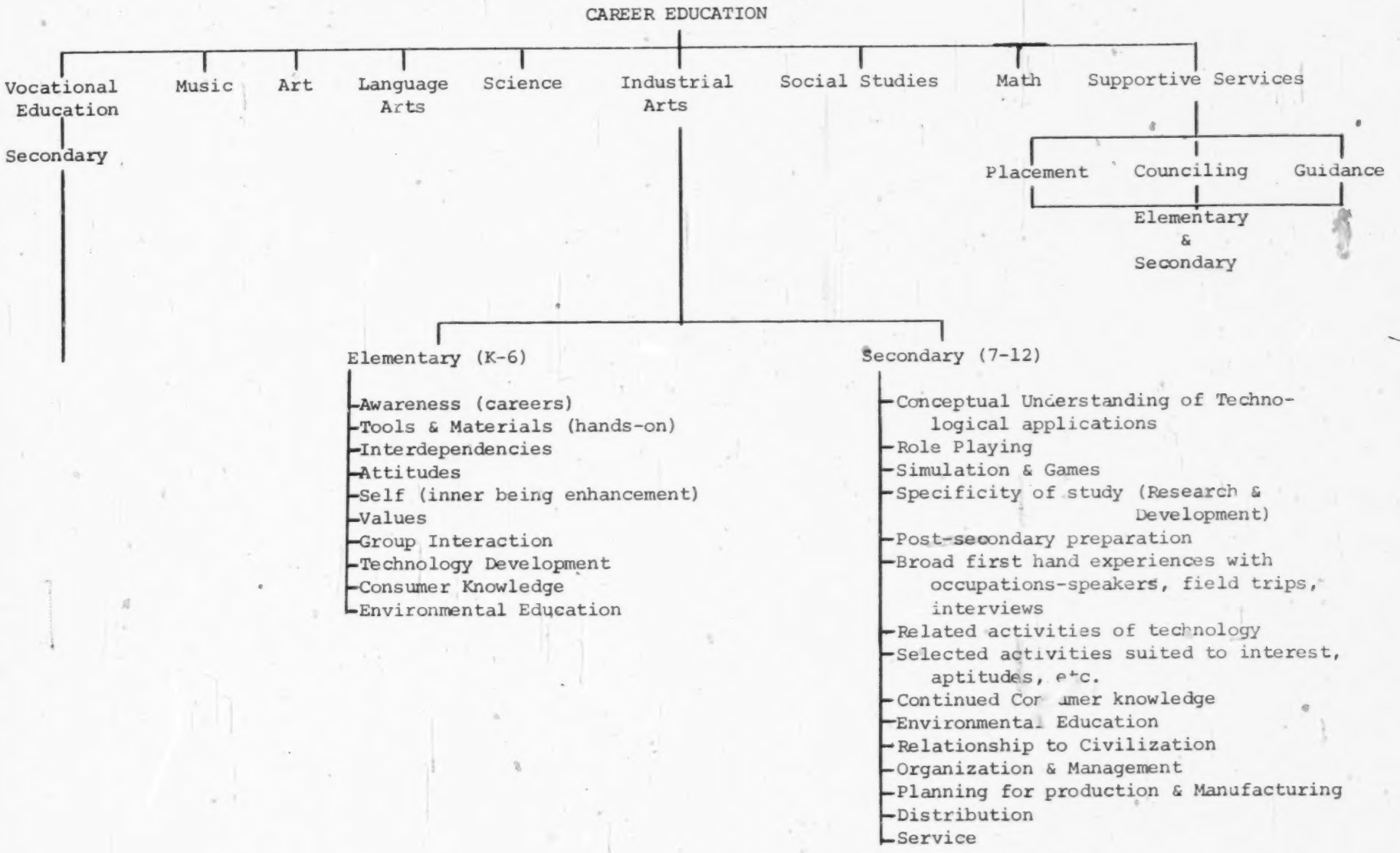
I would like to conclude by showing this group a video tape of the 'Design for Learning" a Ford Foundation project.

COMCEPTS

	SOCIAL STUDIES	SCIENCE	LANGUAGE ARTS	MATH	INDUSTRIAL ARTS
	Self-concept, home-school-community, Awareness of Natural, capital human resources, Culture & values	Life Science, Biological & Physical with emphasis on biological	Reading-processes, experimental, word attack, vocabulary, comprehension. Writing--Awareness of words, poetry, compositions, phrases, plays, letters, forms. Speaking--conversation, dramatization, pronunciation. Listening--informational, interpretative, analytical	Sets, Number vocab., Measurements, (K-6)graphs, geometric shape, number concept and computation (4-6) fraction & use, pressure measurements, cost vs. profit, measurement device	Awareness of career, goals & Materials (hands-on), attitudes, self (inner being), values group interaction, Technology development, consumer know., environ. ed., role playing
	Decision Making Structure & trends in labor force	Physical & biological with emphasis on physical or general science		Geometry, algebra, trigonometry, probability, statistics	Concept Understanding, simulation games, related Act. tech. relationship to civilization
SELECTION	Problem areas & jobs	Applied Physical science, chemistry, physics, biology		Applied Math, geometries, algebras, analysis	Selected activities related to interest, aptitudes, etc. Specificity of study, post-sec. preparation



CAREER EDUCATION
INTERDISCIPLINARY MODEL


CAREER EDUCATION
Vocational Education
Secondary
Music
Art
Language Arts
Science
Industrial Arts
Social Studies
Math
Supportive Services
Placement
Counciling
Guidance
Elementary & Secondary
Elementary (K-6)
Awareness (careers)
Tools & Materials (hands-on)
Interdependencies
Attitudes
Self (inner being enhancement)
Values
Group Interaction
Technology Development
Consumer Knowledge
Environmental Education
Secondary (7-12)
Conceptual Understanding of Technological applications
Role Playing
Simulation & Games
Specificity of study (Research & Development)
Post-secondary preparation
Broad first hand experiences with occupations-speakers, field trips, interviews
Related activities of technology
Selected activities suited to interest, aptitudes, etc.
Continued Consumer knowledge
Environmental Education
Relationship to Civilization
Organization & Management
Planning for production & Manufacturing
Distribution
Service

CAREER EDUCATION CURRICULUM DEVELOPMENT

by
LeVene A. Olson

This course in Career Education at Marshall University involves an introduction to the process of systematically providing students with realistic educational experiences which focus on the developmental process of career maturation. The teaching strategies or techniques of field experiences, interpersonal interaction, manipulative activities, multi-media activities, occupational research, resource role models, and simulated and/or hands-on experiences are investifated.

The concept of curricular correlation utilizing fine arts, language arts, mathematics, science, and social studies is introduced. Sources of commerically produced materials and methods of student-teacher produced materials are investigated.

The goals of the course are: To assist educators in stating behavioral objectives and in relating performance criteria to student evaluation; to develop increased awareness of the relationship between teaching strategies and curricular correlation as they relate to preparing and teaching an instructional resource unit; and to develop increased skill in researching an occupational area and selecting strategies for implementation of career education as an intregal part of the existing courses offered in the local school.

OBJECTIVES

The participants involved in developing curricular materials will:

1. Define Career Education and develop a rationale for Career Education.
2. Prepare a bibliography of Career Education resource materials.
3. List teaching procedures and student activities appropriate to a specific grade level and appropriate to the career education model.
4. Prepare a list of goals for a specific grade level and specific subjects.
5. Prepare a list of Career Education goals based on the occupational matrix and career education model.
6. Determine and list activities to be used to achieve the subject and career education goals.
7. Write psychomotor, affective and cognitive objectives appropriate to the occupational martrix and the career education model.
8. Prepare descriptive occupational information appropriate to the occupational matrix and the career education model.
9. Prepare concepts for each module.
10. Prepare a list of correlation activities for the subject areas which are appropriate to the occupational area being developed.
11. Prepare measurement and evaluation procedures appropriate to the instructional resource unit and students.
12. Develop an instructional resource unit for the appropriate grade level which contains a certificate of advisory committees, subject goals, career education goals, a list of correlation activities, descriptive occupational information, behavioral objectives, outline of content, teacher activities, student activities, resources, measurement and evaluation instruments, and a bibliography.
13. Utilize an occupational advisory committee to critique the instructional resource unit.
14. Utilize an educational advisory committee to critique the instructional resource unit.

INSTRUCTIONAL UNITS

Units 1 & 2	INTRODUCTION TO CAREER EDUCATION
Unit 3	DEVELOPING CURRICULAR MATERIALS IN CAREER EDUCATION
Unit 4 & 5	IMPLEMENTING CAREER EDUCATION
Unit 6 & 7	EDUCATION AND THE WORLD OF WORK
Unit 8	MEASURABLE BEHAVIORAL OBJECTIVES
Unit 9	UNIT DEVELOPMENT CONCEPTS
Unit 10 & 11	EXPERIENTIAL ACTIVITIES IN UNIT DEVELOPMENT
Unit 12	UNIT DEVELOPMENT
Unit 13	OCCUPATIONAL ADVISORY COMMITTEE MEETING
Unit 14	SEMINAR ON UNIT DEVELOPMENT
Unit 15	UNIT DEVELOPMENT
Unit 16	EDUCATIONAL ADVISORY COMMITTEE MEETING
Unit 17	SEMINAR ON UNIT DEVELOPMENT

UNITS, METHODS, AND ASSIGNMENTS

Units 1 & 2

INTRODUCTION TO CAREER EDUCATION
- Career Education Principles
- Career Education Models

Methods of Presentation
- U S O E Film "Career Education"
- Handout: Career Education Principles

Assignment
- Define Career Education

Unit 3

DEVELOPING CURRICULAR MATERIALS IN CAREER EDUCATION
- Subject Goals
- Career Education Goals
- Behavioral Objectives
- Advisory Committees
- Occupational Matrix
- Occupational Information
- Curriculum Development
- Correlated Curriculum
- Teaching Strategies
- Bibliography

Methods of Presentation
- Lectures
- Discussion

Assignment
- Develop a rationale for Career Education

Units 4 & 5

IMPLEMENTING CAREER EDUCATION
- Career Education Model K-A
- Career Education in Practice

Methods of Presentation
- Visuals
- Slides
- Discussion
- Interaction Groups

Assignment
- List teaching procedures and student activities appropriate to the grade level you are teaching and appropriate to the Career Education Model.

Units 6 & 7

EDUCATION AND THE WORLD OF WORK
- Occupational Clusters
- Occupational Matrix
- Subject Goals
- Career Education Goals
- Correlating Curricula

Methods of Presentation
- Lecture
- Discussion
- Interaction Groups

Assignment
1. Prepare a list of goals for the grade level and subjects you teach.
2. Prepare a list of goals in Career Education based on the Occupational Matrix and Career Education Model.
3. Prepare a bibliography of resource materials.

Unit 8

MEASURABLE BEHAVIORAL OBJECTIVES
- Visible Behavior
- Conditions
- Performance Level
- Taxonomy of Objectives

Methods of Presentation
- Lecture
- Handouts
- Group Exercise
- Individual Exercise
- Discussion

Assignment

Write psychomotor, affective and cognitive objectives related to the occupations upon which your unit is based.

Unit 9

UNIT DEVELOPMENT CONCEPTS
- Behavioral Objectives
- Occupational Information
- Content
- Teacher Activities
- Subject Correlation
- Student Activities
- Resources
- Evaluation

Methods of Presentation
Lecture
Discussion

Assignment
Gather occupational information related to the occupations upon which your unit is based.
Prepare methods of correlating the curricula.

Units 10 & 11

EXPERIENTIAL ACTIVITIES IN UNIT DEVELOPMENT
Behavioral Objectives
Occupational Information
Teacher Activities
Subject Correlation
Student Activities
Resources
Evaluation

Methods of Presentation
Lecture
Discussion
Interaction Groups

Assignment
Combine assigned components of the unit and continue development of your unit. Select your advisory committees.
Develop concepts for each module.

Unit 12

UNIT DEVELOPMENT

Method of Presentation
Individual work

Assignment
Arrange for your Occupational Advisory Committee to meet and critique your unit in terms of the occupational activities and experiences.

Unit 13

OCCUPATIONAL ADVISORY COMMITTEE MEETING

Method of Presentation
Discussion

Assignment
Utilize the comments and information provided by your advisory committee to revise your unit.

Unit 14 SEMINAR ON UNIT DEVELOPMENT

Method of Presentation
Discussion

Assignment
Continue development of your unit

Unit 15 UNIT DEVELOPMENT

Method of Presentation
Individual Work

Assignment
Arrange for your Educational Advisory Committee to meet and critique your unit in terms of the educational activities and experiences.

Unit 16 EDUCATIONAL ADVISORY COMMITTEE MEETING

Method of Presentation
Discussion

Assignment
Utilize the comments and information provided by your advisory committee to revise your unit.

Unit 17 SEMINAR ON UNIT DEVELOPMENT

Method of Presentation
Discussion

Assignment
Complete your Instructional Resource Unit

PEOPLE WHO WORK IN _____

Career Education Instructional Resource Unit

Grade Level _____

by

_____
Teacher's Name

_____
School

_____
Address

Certificate of Advisory Committees

We hereby certify that the attached Instructional Resource Unit was prepared in consultation with the Occupational Advisory Committee.

Name_____

Occupation_____

Employer_____

Name_____

Occupation_____

Employer_____

Name_____

Occupation_____

Employer_____

We hereby certify that the attached Instructional Resource Unit was prepared in consultation with the Educational Advisory Committee.

Name_____

School_____

Name_____

School_____

Name_____

School_____

INTRODUCTION

In one or two pages, define career education and develop the rationale (reason or need) for this educational approach being used at a particular grade level. Explain how this unit is to be used by the teacher.

SUBJECT GOALS

Fine Arts

1.

2.

3.

Language Arts

1.

2.

3.

Mathematics

1.

2.

3.

Science

1.

2.

3.

Social Science

1.

2.

3.

CAREER EDUCATION GOALS

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

13.

14.

15.

CORRELATED CURRICULA

Fine Arts

1.

2.

3.

Language Arts

1.

2.

3.

Mathematics

1.

2.

3.

Science

1.

2.

3.

Social Science

1.

2.

3.

DESCRIPTIVE INFORMATION

To assist the teacher and students, include information concerning the occupations studied in this unit. The amount of information will depend on the grade level in which this unit is to be used. Suggested types of information which you may want to include are as follows:

1. Advancement Possibilities
2. Advantages
3. Disadvantages
4. Dress Requirements
5. Education Requirements
6. Fringe Benefits
7. Future Outlook
8. Geographic Location
9. Legal Requirements
10. Occupational Advancement
11. Occupational Tools
12. On-The-Job Training
13. Physical Requirements
14. Related Occupations
15. Skill Requirements
16. Subject Knowledge Requirements

TITLE OF UNIT

Module No. _____ Grade Level _____

Behavioral Objectives

1. _____

2. _____

3. _____

I. Concept

II. Teaching Procedures:
1. Field Trips
2. Interpersonal Interaction
3. Manipulative Activities
4. Multi-Media Activities
5. Occupational Research
6. Resource Role Models
7. Simulation, Role playing, and/or hands-on-Activities

III. Subject Correlation

IV. Student Activities
1. Bulletin Boards
2. Buzz Sessions
3. Career Club Activities
4. Constructing Props
5. Constructing Models
6. Discussions
7. Displays
8. Dramatization
9. Drawings
10. Exhibits
11. Field Trips
12. Games (Participate)
13. Questioning
14. Hands-on-Experience
15. Interviewing
16. Listening
17. Murals
18. Oral Reports
19. Panel Discussions
20. Pantomime
21. Plays
22. Psychomotor Activities

23. Readings
24. Research
25. Role Playing
26. Singing
27. Speeches
28. Scrapbooks
29. Simulation Exercises
30. View Films
31. View Television
32. Write Letters
33. Write Plays
34. Write Reports

V. Evaluation
1. Anecdotal Records
2. Conferences
3. Discussion
4. Formal Tests
5. Interpretive Exercises
6. Observation
7. Rating Scales
8. Work Samples

VI. Resources and Materials

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CAREER EDUCATION PRACTICUM

by
LeVene A. Olson

This course in Career Education at Marshall University involves the implementation and validation of a career education instructional resource unit. Career Education is a process of systematically providing learners with meaningful experiences which focus on helping them become viable individuals who are capable of making accurate choices concerning future careers.

This course focuses on the development and/or revision of needs assessment techniques, definition of career education, rationale for career education, subject goals, career education goals, behavioral objectives, concepts, teaching procedures, subject correlation, student activities, evaluation techniques, and resources. The development and/or revision of these components are based on their effectiveness as measured by the teacher.

The goals of the course are: to assist educators in implementing a career education instructional resource unit; to develop an awareness of the effectiveness of the unit based on student reaction; and to further develop and/or revise the components of the unit to increase its effectiveness.

PROCESS OBJECTIVES

The participants involved in implementing and validating curricular materials will:

1. Develop and/or revise needs assessment techniques to ascertain the developmental level of the students.
2. Develop and/or revise a definition and rationale for career education.
3. Develop and/or revise subject goals.
4. Develop and/or revise career education goals.
5. Develop and/or revise bahavioral objectives.
6. Develop and/or revise descriptive information about occupations.
7. Develop and/or revise concepts for each teaching procedure noted in the unit.
8. Develop and/or revise teaching procedures.
9. Develop and/or revise subject correlation activities.
10. Develop and/or revise student activities.
11. Develop and/or revise evaluation techniques.
12. Develop and/or revise resources and materials.

PRODUCT OBJECTIVE

Each participants will complete a validated career education instructional resource unit which contains a needs assessment inventory, definition of career education, reationale, subject goals, career education goals, behavioral objectives, descriptive information, concepts, teaching procedures, subject correlation, student activities, evaluation techniques, and resources.

_____
Title of Unit

Teacher_____ Grade____

Objective_____

_____

Concept _____

_____

_____

1. Teaching Strategy_____
   Effectiveness_____
   unsatisfactory poor average good outstanding

Recommended Revision_____

_____

_____

2. Student Activities_____
   Effectiveness_____
   unsatisfactory poor average good outstanding

Recommended Revision_____

_____

_____

3. Subject Correlation_____
   Effectiveness_____
   unsatisfactory poor average good outstanding

Recommended Revision_____

_____

_____

4. Resources & Materials Effectiveness

unsatisfactory | poor | average | good | understanding

Recommended Revision

5. Student Reaction

6. Teacher Comments

EVALUATION

by
LeVene A. Olson

The concern in planning, developing, and implementing any educational project is that of providing experiences which will achieve the objectives.

The general objective for the institutes was to provide meaningful information and experiences upon which educational leaders in the local school systems are able to systematically make decisions relative to planning, developing, providing, implementing, and evaluating Career Education. A second general objective which is present in all situations in which the project director is sensitive to the needs of the participants is that of creating an open atmosphere which allows for free and honest feedback upon which program adjustments can be made.

The Problem

The general question asked in this study is as follows: Will administrative, supervisory, and counseling personnel representing local education agencies who have been provided career education information and experience in an open environment that is both task and process oriented reflect more knowledge and more positive attitudes about career education than they did prior to the career education institute? The specific research question involved the comparison of pretest and posttest scores representing attitudes, familiarity, and perceptions of career education.

Limitations

The study was limited to those participants who were pretested at the beginning of the Career Education Institutes conducted in Charleston,

Princeton, Glen Dale, Keysers, and Clarksburg, West Virginia and post-tested subsequent to each institute.

Research Objectives

The research objectives of this study are as follows:

1. To compare the participant's attitudes related to career education prior to the Career Education Institute with their attitudes relate to career education subsequent to participation in the Career Education Institute.

2. To compare the participants familiarity with career education prior to the Career Education Institute with their familiarity with career education subsequent to participation in the Career Education Institute.

3. To compare the participants perceptions of career education prior to the Career Education Institute with their perceptions of career education subsequent to participation in the Career Education Institute.

Instrumentation

The Familiarity Scale, Attitude Scale, and Semantic Differential devised by the researcher for the Career Education Institutes were utilized to determine the effectiveness of the experiences which were provided to the participants. The instruments are included in Appendix A

Findings

The differences between the pretest and posttest means on the attitude scale were large enough to indicate a very definite change in attitudes in a positive direction. Refer to figure 1 for a graphic illustration and to Appendix B for test scores.

Figure 2 illustrates the differences between the pretest and posttest means on the Familiarity Scale. The differences indicate a definite increase in degree of familiarity with certain concepts which are important in career education.

The results of the Semantic Differential are illustrated in Figures 3 and 4. The differences, although positive, were so small that no definite significance can be attached to them.

CONCLUSION

The results of the evaluation of the Career Education Institutes indicates the effectiveness of utilizing a task and process approach to inservice education. Educators as well as elementary, secondary, and college students are seeking meaning and relevancy in their endeavors.

But of more importance than the test results has been the receptivity by educators at the local level to the career education concept. Since the Career Education Institutes were completed, the interest and concern of local educators has been translated into action by many participants. Many of the staff members on this EPDA project have been involved in numerous local school systems in conceptualizing and implementing career education in West Virginia.

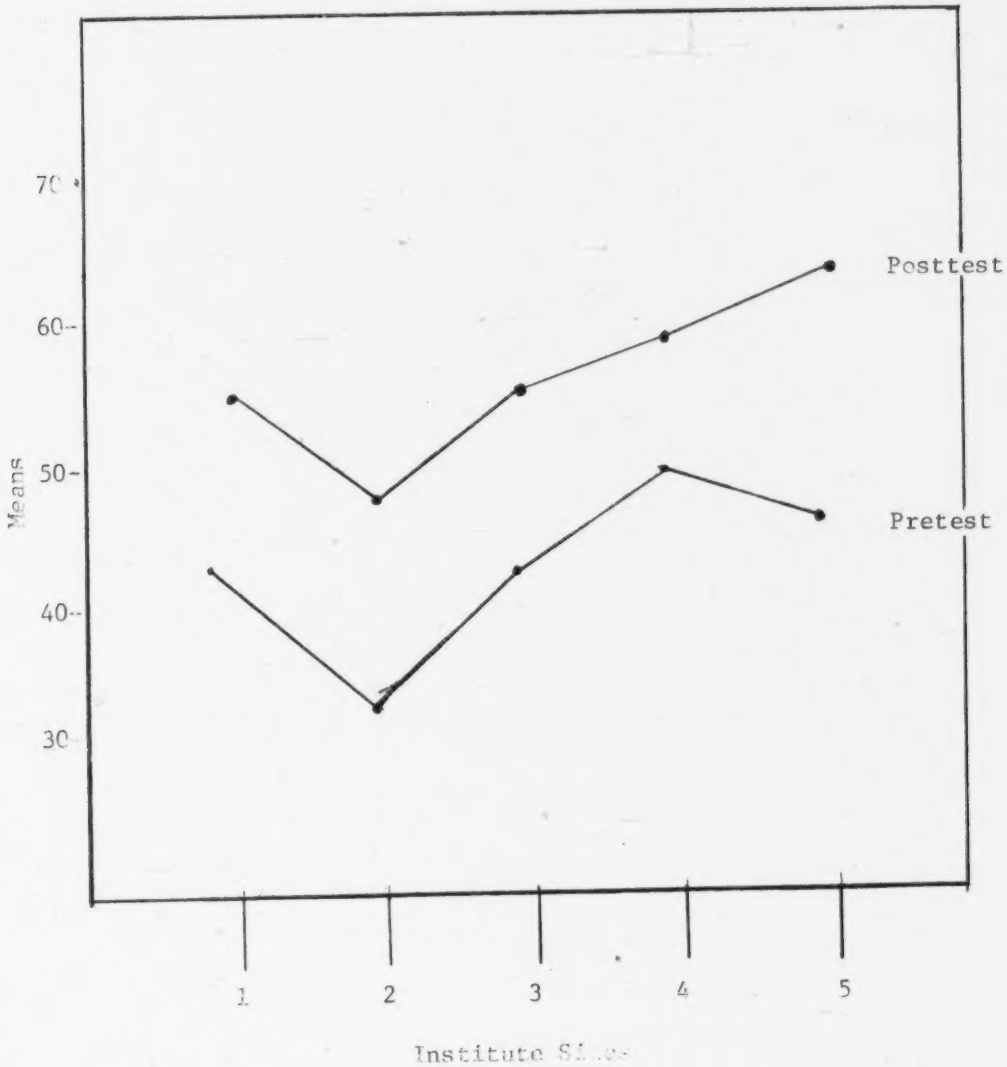


Figure 1. Attitude Scale

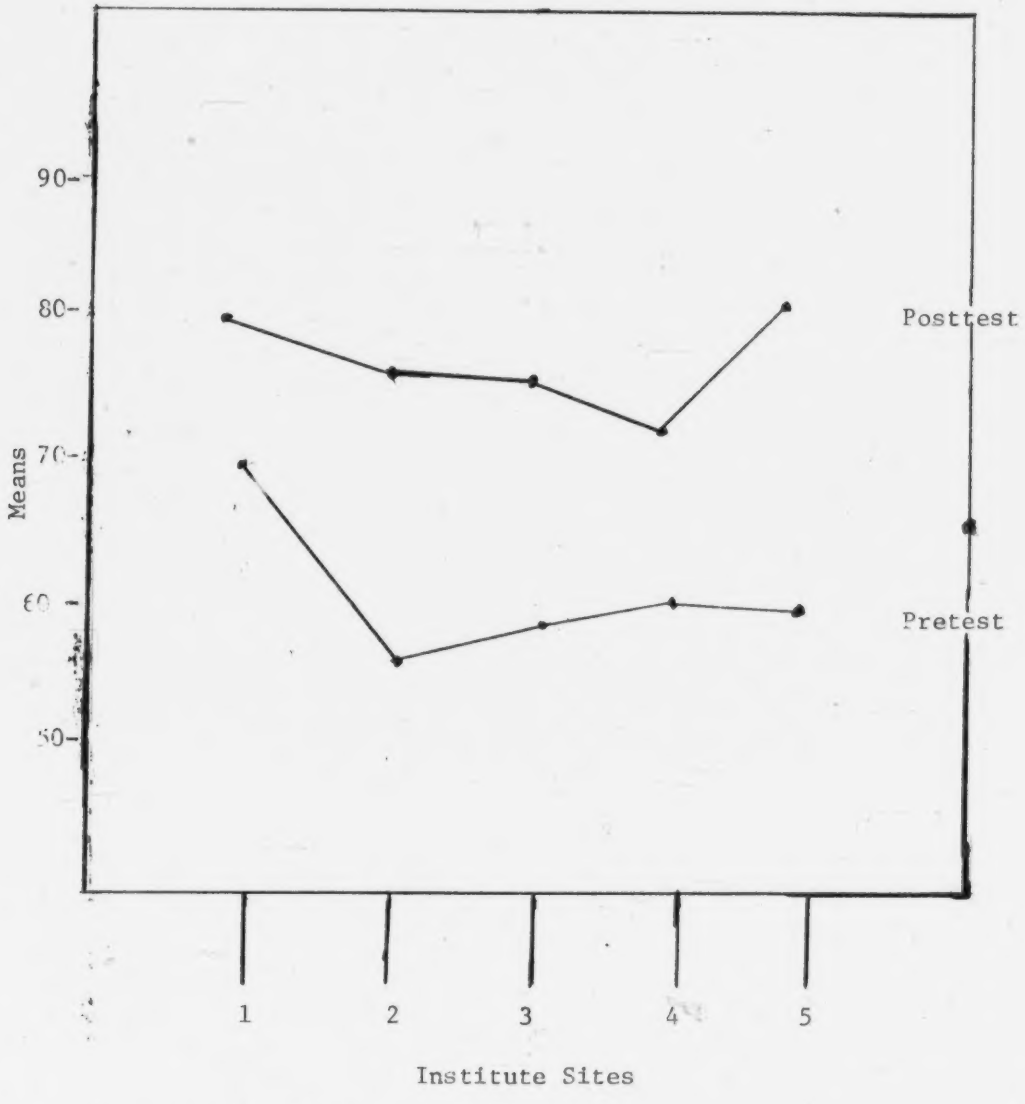


Figure 2. Familiarity Scale

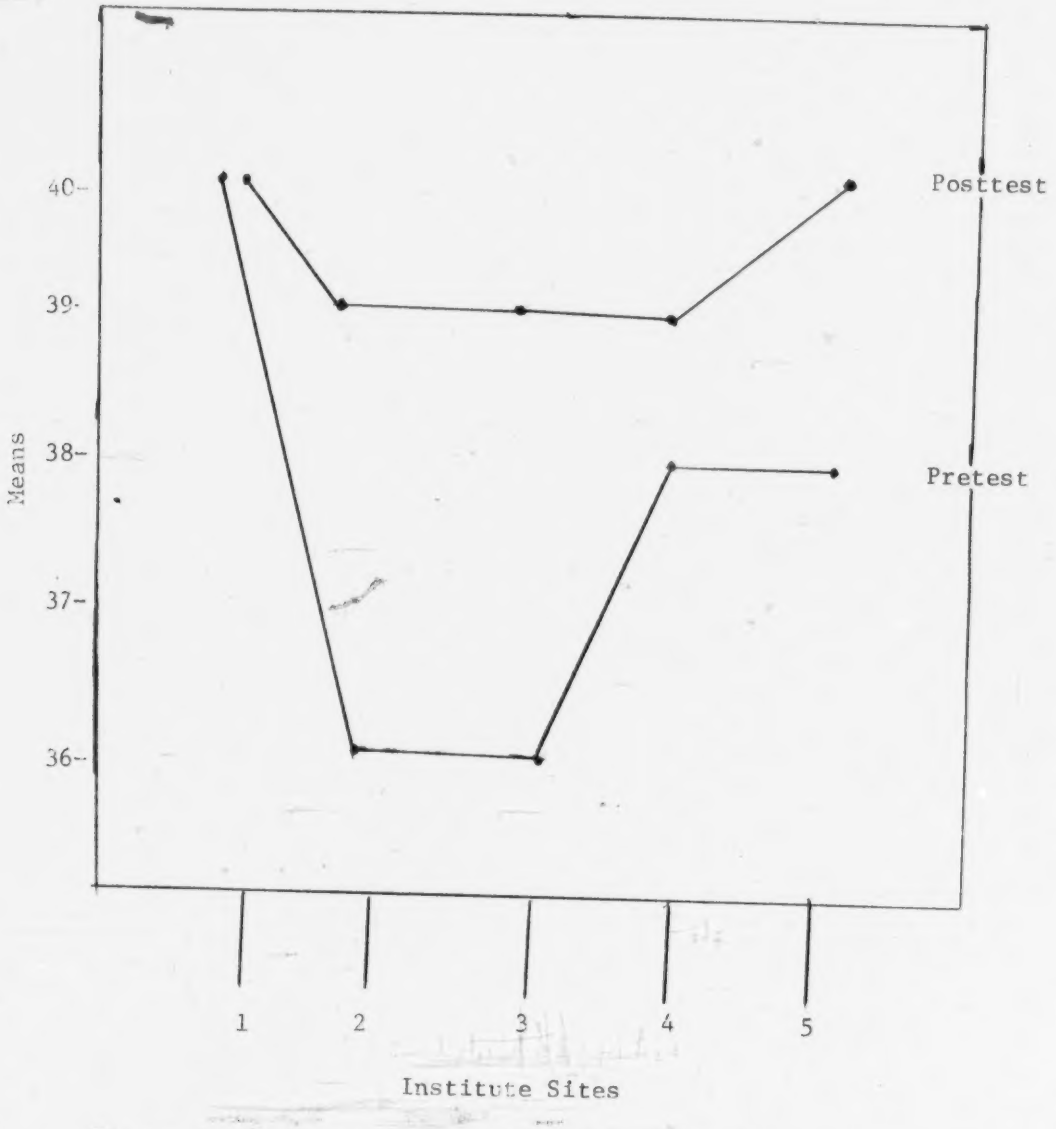


Figure 3. Semantic Differential (Vocational)

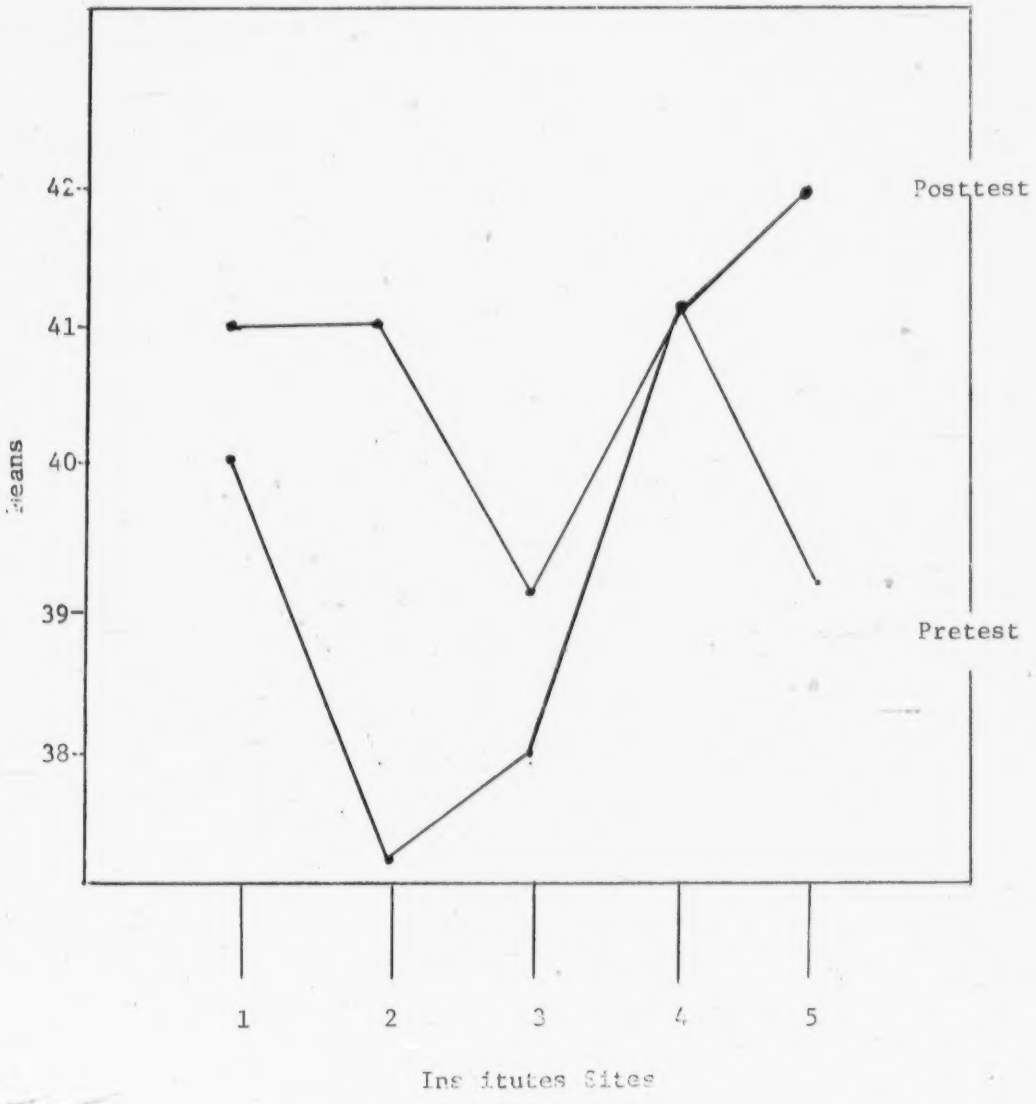


Figure 4. Semantic Differential (Career)

APPENDIX A

Attitude Scale

Familiarity Scale

Semantic Differential Scale

CAREER EDUCATION INSTITUTE

ATTITUDE SCALE

Name: _____

Position: _____

Institute Site: _____

Circle one: Male Female

This is not a test. There are no right or wrong answers. We are interested in how this group of educators feel about certain statements. Information used from this instrument will be reported only on a random basis. No information on individuals will be provided to Local, State, or Federal agencies. The information you provide will be kept strictly confidential.

Please respond to each statement on the following pages by placing an "X" in the space which best indicates your opinion about each statement according to the following criteria:

SD: I strongly disagree with the statement

D: I disagree with the statement

NO: I have no opinion about the statement

A: I agree with the statement

SA: I strongly agree with the statement

1. Adults find their imaginations taxed to comprehend a new world, a now world that youth understand and accept with ease.

SD_____ D_____ NO_____ A_____ SA_____

2. All persons in all communities of the state should be provided

ready access to Vocational Education Programs.

SD_____ D_____ NO_____ A_____ SA_____

3. Career Education should begin at the kindergarten or first grade level.

SD_____ D_____ NO_____ A_____ SA_____

4. The most effective and efficient form of instruction is the lecture-demonstration approach.

SD_____ D_____ NO_____ A_____SA_____

5. It is possible that some secondary schools in West Virginia should not offer Vocational Education Programs.

SD_____ D_____ NO_____ A_____ SA_____

6. Vocational counseling and guidance, to provide career exploration experiences upon which career decisions can be made, should begin in the middle school and be a pressing issue in high school.

SD_____ D_____ NO_____ A_____ SA_____

7. Vocational Education should not stress the theory that the mind is a muscle and requires exercise.

SD_____ D_____ NO_____ A_____ SA_____

8. At the elementary level, activity centered projects give the student concrete experiences which serve to provide specific vocational skills.

SD_____ D_____ NO_____ A_____ SA_____

9. Acquisition of job entry level skills is not a characteristic of career education programs at the Jr. high school level

SD_____ D_____ NO_____ A_____ SA_____

10. Educators should strive for a dual system of education (vocational and academic).

SD_____ D_____ NO_____ A_____ SA_____

11. Teachers serving the disadvantaged and/or handicapped students at the secondary level should provide a separate specialized program for these students

SD_____ D_____ NO_____ A_____ SA_____

12. Vocational teachers should work closely with academic and administrative personnel in a school to insure that vocational education does not become a separate discipline.

SD_____ D_____ NO_____ A_____ SA_____

13. Exemplary programs are designed to provide information and experiences for students which will enable them to make occupational choices.

SD_____ D_____ NO_____ A_____ SA_____

14. Rotation of students through several vocational courses is sufficient occupational orientation for any student.

SD_____ D_____ NO_____ A_____ SA_____

15. Career Education will provide students with broader career opportunities.

SD_____ D_____ NO_____ A_____ SA_____

16. A separate vocational school or distinct vocational tracks should be provided to high school students.

SD_____ D_____ NO_____ A_____ SA_____

17. Vocational and technical programs should be readily available to most adults.

SD_____ D_____ NO_____ A_____ SA_____

18. Students of a Kindergarten through Adulthood Program should possess mobility on a geographical basis.

SD_____ D_____ NO_____ A_____ SA_____

19. Industrial arts is able to provide career exploration experiences to students.

SD_____ D_____ NO_____ A_____ SA_____

20. Graduates of multi-occupational vocational education programs should be able to adapt to technological change with little difficulty.

SD_____ D_____ NO_____ A_____ SA_____

21. In-depth preparation for a specific occupation should be accomplished by most students after graduation from high school.

SD_____ D_____ NO_____ A_____ SA_____

22. The integration of academic subject matter with vocational education course content is a good idea which will never work in reality.

SD_____ D_____ NO_____ A_____ SA_____

23. Most sophomores in high school are capable of making definite career decisions.

SD_____ D_____ NO_____ A_____ SA_____

24. Integration of academic areas with vocational education will enable students to apply various subjects to their courses in vocational education.

SD_____ D_____ NO_____ A_____ SA_____

25. Students graduating from a general education program will be able to obtain employment in a number of occupations with little difficulty.

SD_____ D_____ NO_____ A_____ SA_____

26. Individualized prescribed instruction should only be used for remedial work with lower ability students.

SD_____ D_____ NO_____ A_____ SA_____

27. A two and one half hour block of time, five days a week for vocational education is a deterrent to program enrollment.

SD_____ D_____ NO_____ A_____ SA_____

28. The use of a single instructor in teaching several occupational areas within one classroom is not feasible.

SD_____ D_____ NO_____ A_____ SA_____

29. Vocational education in all the service lines should provide career exploration experiences for students.

SD_____ D_____ NO_____ A_____ SA_____

30. Career education should be limited to those students who do not intend to pursue a college education.

SD_____ D_____ NO_____ A_____ SA_____

	Very Familiar	Rather Familiar	Moderately Familiar	Slightly Familiar	Not Familiar
1. Career Education	VF	RF	MF	SF	NF
2. Career Awareness	VF	RF	MF	SF	NF
3. Career Orientation	VF	RF	MF	SF	NF
4. Career Exploration	VF	RF	MF	SF	NF
5. Vocational Education	VF	RF	MF	SF	NF
6. Cluster Concept Program	VF	RF	MF	SF	NF
7. Field Experiences	VF	RF	MF	SF	NF
8. Curriculum Blending	VF	RF	MF	SF	NF
9. Resource Role Models	VF	RF	MF	SF	NF
10. Simulation Activities	VF	RF	MF	SF	NF
11. Role Playing	VF	RF	MF	SF	NF
12. Psychomotor Activities	VF	RF	MF	SF	NF
13. Behavior Modification	VF	RF	MF	SF	NF
14. Future Shock	VF	RF	MF	SF	NF
15. Multi-Occupational Program	VF	RF	MF	SF	NF
16. Cooperative Education	VF	RF	MF	SF	NF
17. Articulation	VF	RF	MF	SF	NF
18. Behavioral Objectives	VF	RF	MF	SF	NF
19. Teaching Strategies	VF	RF	MF	SF	NF
20. Experiental Activities	VF	RF	MF	SF	NF

CAREER EDUCATION INSTITUTE

SEMANTIC DIFFERENTIAL

Name:_____

Position:_____

Institute Site:_____

Circle one: Male Female

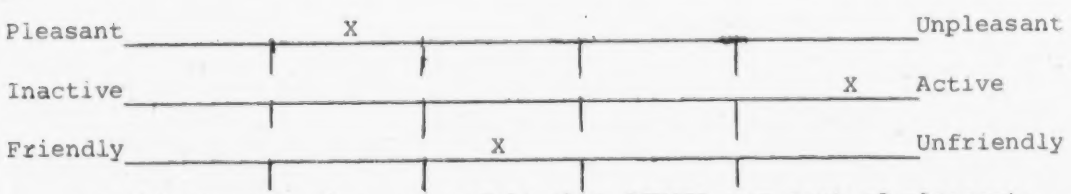
This is not a test. There are no right or wrong answers. We are interested in how this group of educators feel about certain concepts. Information used from this instrument will be reported only on a random basis. No information on individuals will be provided to Local, State, or Federal agencies. The information you provide will be kept strictly confidential.

At the top of each page in this booklet is a word. Beneath each of these words there are pairs of words with opposite meanings.

You are to place an "X" in the space nearest to the meaning which tells how you feel about the concept.

For example:

SCHOOL



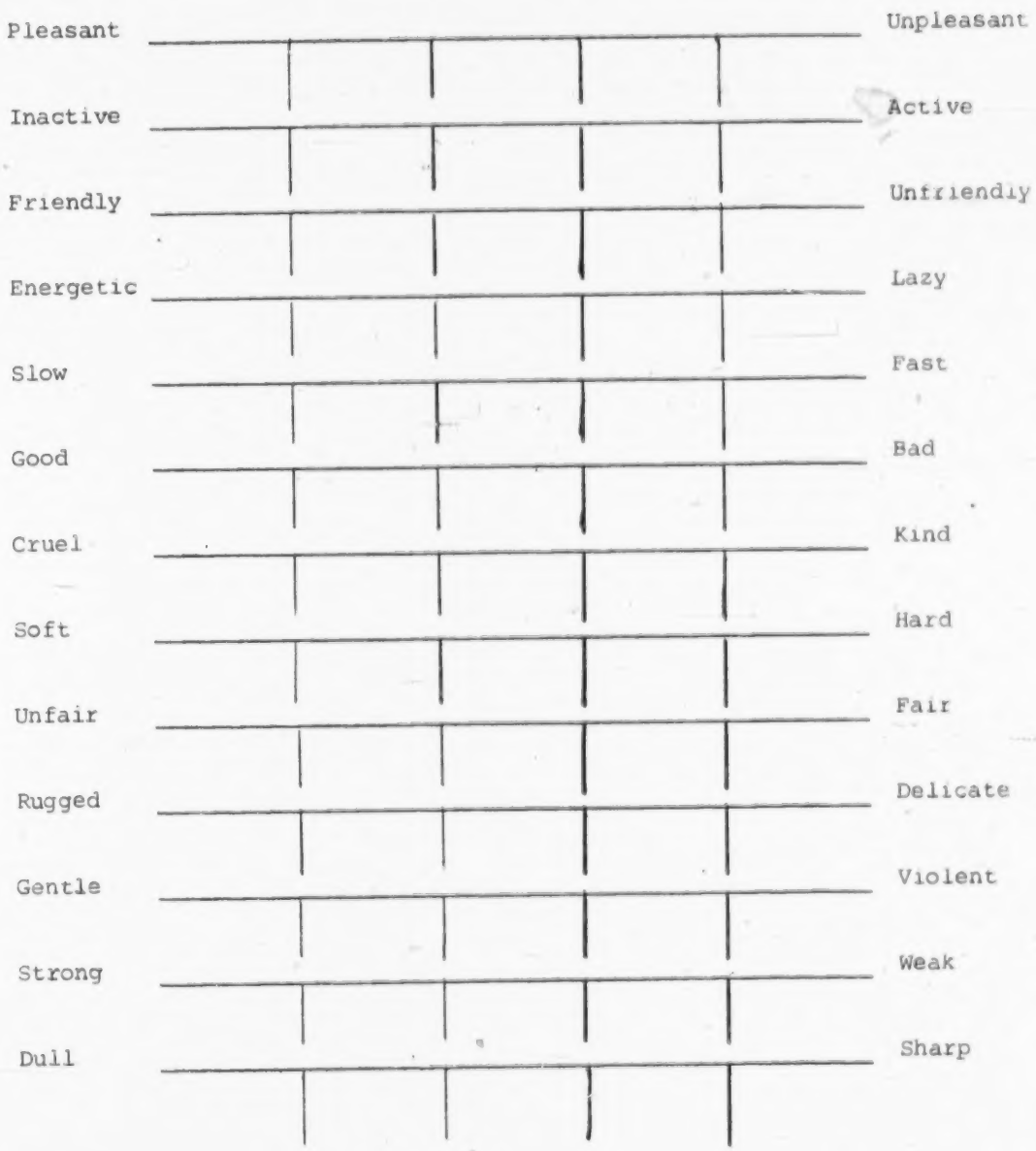
In this example the person felt that SCHOOL was sort of pleasant, but not very pleasant so he placed an "X" in one space away from pleasant.

Then he felt that SCHOOL was very active, so he placed an "X" in the space right next to the word active.

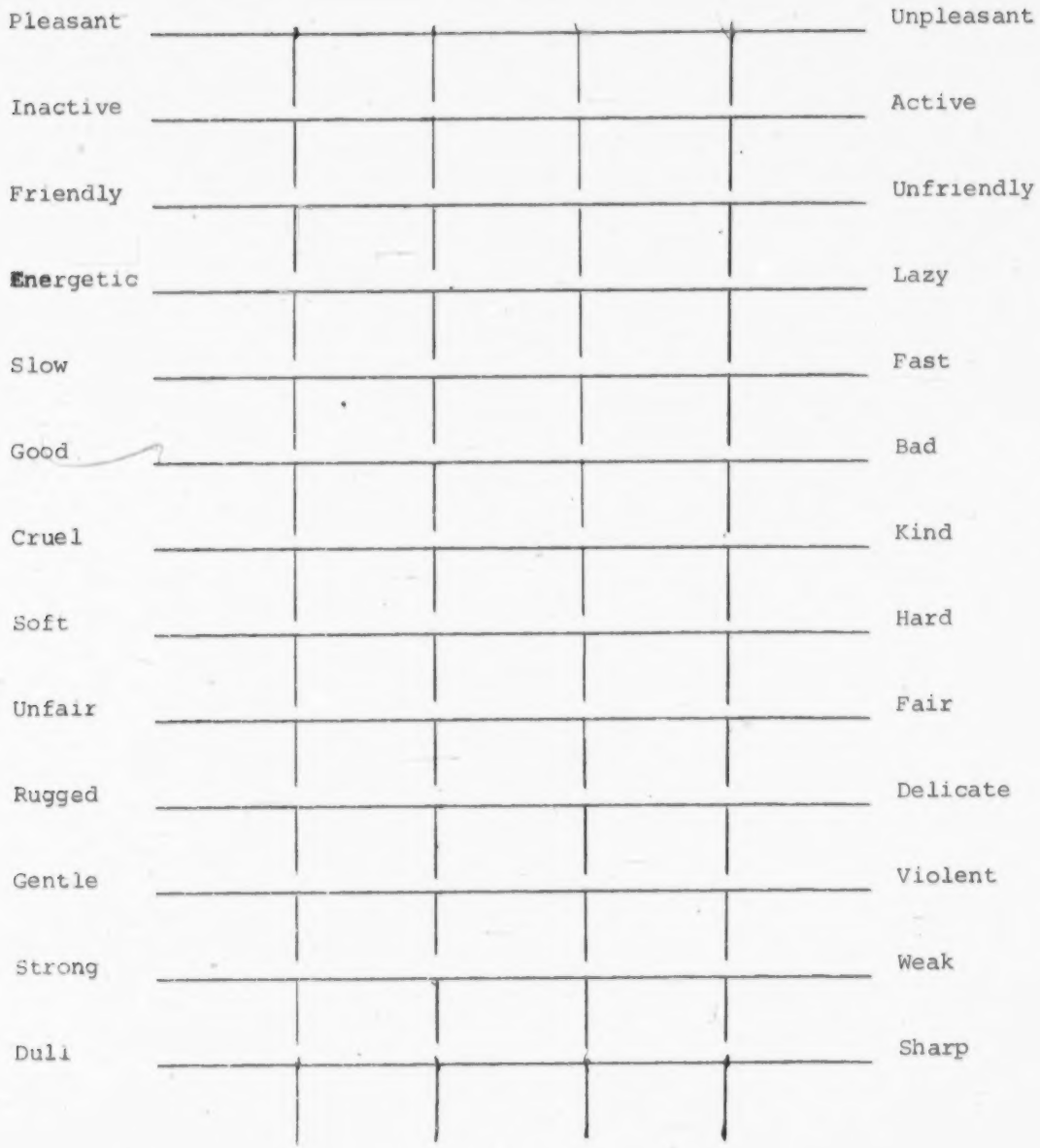
Then he felt that SCHOOL was not friendly and was not unfriendly, so he placed an "X" in the middle space between friendly and unfriendly.

Remember, put only one "X" on a line and complete each page before turning to the next page.

VOCATIONAL EDUCATION



CAREER AWARENESS



APPENDIX B

Test Scores

CAREER EDUCATION INSTITUTE
Site One

Participant Random Number	Career Education Attitude Scale		Career Education Familiarity Scale		Semantic Differential Vocational		Semantic Differential Career Awareness	
	Pretest	Posttest	Pretest	Posttest	Pre	Post	Pre	Post
1	19	67	44	87	40	43	41	41
2	62	67	53	88	37	40	42	42
3	61	66	43	68	35	36	38	38
4	39	48	68	65	31	35	35	36
5	30	58	62	69	32	34	42	42
6	60	64	92	95	34	33	42	41
7	73	85	92	100	41	43	42	42
8	43	57	59	83	38	41	41	43
9	66	71	71	74	41	45	44	43
10	39	31	36	50	44	45	44	46
11	49	56	66	74	39	40	43	41
12	59	49	66	87	39	36	41	37
13	43	56	60	81	41	42	42	42
14	36	46	70	77	40	43	42	42
15	61	60	67	70	41	41	44	46
16	47	67	42	62	37	37	39	38
17	55	48	41	56	43	45	38	44
18	55	56	35	56	27	31	35	37
Mean	42	55	69	80	40	40	40	41
Standard Deviation	17	15	16	12	4	4	5	9
Standard Error	4	3	3	3	1	1	1	2

Scores for participants who did not complete both the pretest and posttest are not reported

CAREER EDUCATION INSTITUTE

Site Two

Participant Random Number	Career Education Attitude Scale		Career Education Familiarity Scale		Semantic Differential Vocational		Semantic Differential Career Awareness	
	Pretest	Posttest	Pretest	Posttest	Pre	Post	Pre	Post
1	23	43	72	80	36	43	42	44
2	6	10	54	68	37	45	39	46
3	51	68	44	65	37	41	39	47
4	43	51	61	72	44	42	0	42
5	41	63	39	86	37	37	41	45
6	12	47	40	87	32	31	35	40
7	25	43	33	82	32	35	36	42
8	24	57	60	100	40	37	37	41
9	41	65	62	81	30	38	40	45
10	52	35	90	74	26	28	30	24
11	23	53	61	86	36	40	34	42
12	39	52	34	69	36	37	42	42
13	57	61	61	80	39	44	38	43
14	43	51	74	84	37	35	42	38
15	49	47	54	79	37	31	43	39
16	33	43	53	71	33	35	36	37
17	0	20	37	69	44	42	42	41
18	57	63	60	89	45	45	50	43
19	5	45	68	76	39	45	32	42
20	54	52	45	69	27	32	29	34
21	10	44	37	58	42	42	43	43
22	13	47	62	69	35	44	43	42
Mean	32	48	55	77	36	39	37	41
Standard Deviation	18	13	14	9	5	5	10	5
Standard Error	39	3	3	2	1	1	2	1

Scores for participants who did not complete both the pretest and posttest are not reported

CAREER EDUCATION INSTITUTE
Site Three

Participant Random Number	Career Education Attitude Scale		Career Education Familiarity Scale		Semantic Differential Vocational		Semantic Differential Career Awareness	
	Pretest	Posttest	Pretest	Posttest	Pre	Post	Pre	Post
1	58	63	51	78	34	38	37	43
2	39	40	60	71	35	41	41	40
3	21	37	85	91	34	44	45	39
4	47	45	66	81	40	40	39	40
5	51	77	50	80	45	43	46	46
6	39	52	52	69	39	43	38	40
7	28	73	62	84	31	40	32	46
8	46	66	64	85	35	34	31	14
9	27	45	51	86	39	43	36	43
10	38	49	51	78	37	37	42	40
11	37	51	65	88	33	45	40	41
12	33	64	49	66	38	39	35	42
13	25	25	77	76	29	37	38	38
14	47	51	45	60	37	33	43	38
15	51	67	57	71	43	36	35	37
16	53	65	54	68	38	37	41	40
17	35	53	42	80	36	36	36	40
18	39	57	52	75	26	36	38	46
19	67	67	70	78	35	41	37	40
Meam	42	55	58	77	36	39	38	39
Standard Deviation	11	13	11	8	5	3	4	11
Standard Error	2	3	2	2	1	1	1	2

Scores for participants who did not complete both the pretest and posttest are not reported

CAREER EDUCATION INSTITUTE
Site Four

Participant Random Number	Career Education Attitude Scale		Career Education Familiarity Scale		Semantic Differential			
					Vocational		Career Awareness	
	Pretest	Posttest	Pretest	Posttest	Pre	Post	Pre	Post
1	25	42	64	80	37	39	38	36
2	19	58	59	65	35	35	35	35
3	43	39	0	49	38	41	37	43
4	59	65	82	89	45	45	44	42
5	25	37	43	80	39	37	43	38
6	49	59	85	88	38	40	44	37
7	61	58	65	79	37	36	37	38
8	35	73	76	92	35	38	25	41
9	85	93	87	88	43	45	45	45
10	39	48	53	74	41	43	42	42
11	43	70	79	97	45	41	46	44
12	55	43	75	80	33	30	38	42
13	13	31	85	79	35	31	30	36
14	49	37	36	61	42	45	35	38
15	51	57	61	81	45	45	42	42
16	34	41	68	76	43	44	46	44
17	38	63	73	91	45	45	46	44
18	27	57	99	100	39	40	44	46
19	18	41	79	76	41	42	40	37
20	55	60	49	83	36	40	40	0
21	42	78	54	69	40	35	36	31
22	67	65	86	90	42		43	45
Mean	50	58	59	75	38	39	41	41
Standard Deviation	14	12	17	14	4	6	3	3
Standard Error	3	3	4	3	1	1	1	1

Scores for participants who did not complete both the pretest and posttest are not reported

CAREER EDUCATION INSTITUTE
Site Five

Participant Random Number	Career Education Attitude Scale		Career Education Familiarity Scale		Semantic Differential Vocational		Semantic Differential Career Awareness	
	Pretest	Posttest	Pretest	Posttest	Pre	Post	Pre	Post
1	49	92	56	79	40	45	46	46
2	35	61	76	82	39	45	46	44
3	41	69	54	71	43	44	41	40
4	50	58	61	68	36	36	37	38
5	89	52	65	81	37	39	30	43
6	21	55	60	70	35	33	35	36
7	55	55	80	89	35	36	35	39
8	37	31	32	78	38	41	42	45
9	56	71	42	81	40	38	41	33
10	69	82	89	90	36	45	45	46
11	32	57	54	98	37	45	37	40
12	39	70	44	84	44	45	46	46
13	40	55	51	80	31	35	33	38
14	60	68	71	73	39	43	37	40
15	38	40	51	74	35	38	41	41
16	57	87	47	81	37	38	40	46
17	40	71	63	95	43	45	34	46
Mean	45	63	59	81	38	41	39	42
Standard Deviation	12	15	14	8	3	4	5	4
Standard Error	3	4	3	2	0	1	1	1

Scores for participants who did not complete both the pretest and posttest are not reported